<110> Rosen et al.

<120> 49 Human Secreted Proteins

<130> PZ032P1

<140> Unassigned
<141> 2000-02-23

<150> PCT/US99/19330
<151> 1999-08-24

<150> 60/097,917
<151> 1998-08-25

<150> 60/098,634
<151> 1998-08-31

<160> 170

<170> PatentIn Ver. 2.0

<210> 1
<211> 733
<212> DNA
<213> Homo sapiens

<400> 1
gggatccgga gcccaaatct tctgacaaaa ctcacacatg cccaccgtgc ccagcacctg 60
aattcgaggg tgcaccgtca gtcttcctct tcccccaaaa acccaaggac accctcatga 120
tctcccggac tcctgaggtc acatgcgtgg tggtggacgt aagccacgaa gaccctgagg 180
tcaagttcaa ctggtacgtg gacggcgtgg aggtgcataa tgccaagaca aagccgcggg 240
aggagcagta caacagcacg taccgtgtgg tcagcgtcct caccgtcctg caccaggact 300
ggctgaatgg caaggagtac aagtgcaagg tctccaacaa agccctccca acccccatcg 360
agaaaaccat ctccaaagcc aaagggcagc cccgagaacc acaggtgtac accctgcccc 420
catcccggga tgagctgacc aagaaccagg tcagcctgac ctgcctggtc aaaggcttct 480
atccaagcga catcgccgtg gagtgggaga gcaatgggca gccggagaac aactacaaga 540
ccacgcctcc cgtgctggac tccgacggct ccttcttcct ctacagcaag ctcaccgtgg 600
acaagagcag gtggcagcag gggaacgtct tctcatgctc cgtgatgcat gaggctctgc 660
acaaccacta cacgcagaag agcctctccc tgtctccggg taaatgagtg cgacggccgc 720
gactctagag gat 733

<210> 2
<211> 5
<212> PRT
<213> Homo sapiens

<220>
<221> Site
<222> (3)
<223> Xaa equals any of the twenty naturally ocurring L-amino acids

<400> 2
Trp Ser Xaa Trp Ser
1 5

<210> 3
<211> 86
<212> DNA
<213> Homo sapiens

<400> 3
gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgacttc 60
cccgaaatat ctgccatctc aattag 86

<210> 4
<211> 27
<212> DNA
<213> Homo sapiens

<400> 4
gcggcaagct ttttgcaaag cctaggc 27

<210> 5
<211> 271
<212> DNA
<213> Homo sapiens

<400> 5
ctcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60
aaatatctgc catctcaatt agtcagcaac catagtcccg cccctaactc cgcccatccc 120
gcccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa ttttttttat 180
ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240
ttttggaggc ctaggctttt gcaaaaagct t 271

<210> 6
<211> 32
<212> DNA
<213> Homo sapiens

<400> 6
gcgctcgagg gatgacagcg atagaacccc gg 32

<210> 7
<211> 31
<212> DNA
<213> Homo sapiens

<400> 7
gcgaagcttc gcgactcccc ggatccgcct c 31

<210> 8
<211> 12
<212> DNA
<213> Homo sapiens

<400> 8
ggggactttc cc 12

<210> 9
<211> 73
<212> DNA
<213> Homo sapiens

<400> 9
gcggcctcga ggggactttc ccggggactt tccggggact ttccgggact ttccatcctg 60
ccatctcaat tag 73

<210> 10
<211> 256
<212> DNA
<213> Homo sapiens

<400> 10
ctcgagggga ctttcccggg gactttccgg ggactttccg ggactttcca tctgccatct 60
caattagtca gcaaccatag tcccgcccct aactccgccc atcccgcccc taactccgcc 120
cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180
ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240
cttttgcaaa aagctt 256

<210> 11
<211> 3289
<212> DNA
<213> Homo sapiens

<400> 11
cccgggtcga cccacgcgtc cggcgaggac cgcgtccggc gcagtcttca atgagcagcg 60
cggaaactgc accccagacc cgagcctgct gcgcgccccc tcccagagct cacctggtgc 120
caggtaacag gcctggcctc gccctgtgga tgatgatggc cttgcccccg tgagctacaa 180
cctggccttc agcacccgcc cacctccaac cagcaggatg cggctgtgga aggcggtggt 240
ggtgactttg gccttcatga gtgtggacat ctgcgtgacc acggccatct atgtcttcag 300
ccacctggac cgcagcctcc tggaggacat ccgccacttc aacatctttg actcggtgct 360
ggatctctgg gcagcctgcc tgtaccgcag ctgcctgctg ctggggagcc accattggtg 420
tggccaagaa cagtgcgctg ggccccggc ggctgcgggc ctcgtggctg gtcatcaccc 480
tcgtgtgcct cttcgtgggc atctatgcca tggtgaagct gctgctcttc tcagaggtgc 540
gcaggcccat ccgggacccc tggttttggg ccctgttcgt gtggacgtac atttcactcg 600
gcgcatcctt cctgctctgg tggctgctgt ccaccgtgcg gccaggcacc caggccctgg 660
agccaggggc ggccaccgag gctgaaggct tccctgggag cggccggcca ccgcccgaac 720
aagcgtctgg ggccacgctg cagaagctgc tctcctacac caagcccgac gtggccttcc 780
tcgtggccgc ctccttcttc ctcatcgtgg cagctctggg agagaccttc ctgccctact 840
acacgggccg cgccattgat ggcatcgtca tccagaaaag catggatcag ttcagcacgg 900
ctgtcgtcat cgtgtgcctg ctggccattg gcagctcatt tgccgcaggt attcggggcg 960
gcatttttac cctcatattt gccagactga acattcgcct tcgaaactgt ctcttccgct 1020
cactggtgtc ccaggagaca agcttctttg atgagaaccg cacaggggac ctcatctccc 1080
gcctgacctc ggacaccacc atggtcagcg acctggtctc cagaacatca atgtcttcct 1140
gcggaacaca gtcaaggtca cgggcgtggt ggtcttcatg ttcagcctct catggcagct 1200
ctccttggtc accttcatgg gcttccccat catcatgatg gtgtccaaca tctacggcaa 1260
gtactacaag aggctctcca aagaggtcca gaatgccctg gccagagcga gcaacacggc 1320
ggaggagacc atcagtgcca tgaagactgt ccggagcttc gccaatgagg aggaggaggc 1380
agaggtgtac ctgcggaagc tgcagcaggt gtacaagctg aacaggaagg aggcagctgc 1440
ctacatgtac tacgtctggg gcagcgggct cacactgctg gtggtccagg tcagcatcct 1500
ctactacggg ggccaccttg tcatctcagg ccagatgacc agcggcaacc tcatcgcctt 1560
catcatctac gagtttgtcc tgggagattg tatggagaat gtctccttca gcctgtcccc 1620
cggcaaggtg acggccctgg tggggccctc gggcagtggg aagagctcct gtgtcaacat 1680
cctggagaac ttctaccccc tggagggggg ccgggtgctg ctggacggca agcccatcag 1740
cgcctacgac cacaagtact tgcaccgtgt gatctccctg gtgagccagg agcccgtgct 1800

gttcgcccgc tccatcacgg ataacatctc ctacggcctg cccactgtgc ctttcgagat 1860
ggtggtggag gccgcacaga aggccaatgc ccacggcttc atcatggaac tccaggacgg 1920
ctacagcaca gagacagggg agaagggcgc ccagctgtca ggtggccaga agcagcgggt 1980
ggcatggccc gggctctggt gcggaacccc ccagtcctca tcctggatga agccaccagc 2040
gctttggatg ccgagagcga gtatctgatc cagcaggcca tccatggcaa cctgcagaag 2100
cacacggtac tcatcatcgc gcaccggctg agcaccgtgg agcacgcgca cctcattgtg 2160
gtgctggaca agggccgcgt agtgcagcag ggcacccacc agcagctgct ggcccagggc 2220
ggcctctacg ccaagctggt gcagcggcag atgctggggc ttcagcccgc cgcagacttc 2280
acagctggcc acaacgagcc tgtagccaac ggcagtcaca aggcctgatg gggggccccc 2340
gcttctcccg gtggggcaga ggacccggtg cctgcctggc agatgtgccc acggaggccc 2400
ccagctgccc tccgagccca ggcctgcagc actgaaagac gacctgccat gtcccatgga 2460
tcaccgcttc ctgcatcttg cccctggtcc ctgccccatt cccagggcac tccttacccc 2520
tgctgccctg agccaacgcc ttcacggacc tccctagcct cctaagcaaa ggtagagctg 2580
ccttttttaaa cctaggtctt accagggttt ttactgtttg gtttgaggca ccccagtcaa 2640
ctcctagatt tcaaaaacct ttttctaatt gggagtaatg gcgggcactt tcaccaagat 2700
gttctagaaa cttctgagcc aggagtgaat ggcccttcct tagtagcctg ggggatgtcc 2760
agagactagg cctctccccc ttaccccctcc agagaagggg cttccctgtc ccggagggag 2820
acacggggaa cgggattttc cgtctctccc tcttgccagc tctgtgagtc tggccagggc 2880
gggtagggag cgtggagggc atctgtctgc catcgcccgc tgccaatcta agccagtctc 2940
actgtgaacc acacgaaacc tcaactgggg gagtgagggg ctggccaggt ctggaggggc 3000
ctcaggggtg cccccagccc ggcacccagc gctttcgccc ctcgtccacc caccccctgg 3060
tggcagcctc cctccccaca cccgcccctg tgctctgctg tctggaggcc acgtggatgt 3120
tcatgagatg catctcttc tgtctttggt ggatgggatg gtggcaaagc ccaggatctg 3180
gctttgccag aggttgcaac atgttgagag aacccggtca ataaagtgta ctacctctta 3240
cccctaaaaa aaaaaaaaaa aaaaaaaaaa aaagggcggc cgctctaga 3289

<210> 12
<211> 2342
<212> DNA
<213> Homo sapiens

<400> 12
ggcacgagct cagatctctc ctggtacccc ttccccacgc ccttagataa tccatctcaa 60
ttcctcatgc taattgagga gctatggctg caaggcacct tccaggattt cacacctaca 120
caaatctcct tttttcctt ttgccttctc tgcttatggg atattctgag tccccacccc 180
caatcactga cagctgggcc cccttcatca gcctcacaca ccacgtatta agtcagtcac 240
aatckccccc ctcmtctaac tgctggattt gtctttctac acacacccaa tgattcacgg 300
ctcttccggc tgamctactt acatggacac agtccaacgt gagcttacac atttcttact 360
tggctatacc attcttggct gattcattcc tgaaamcggt tcataacctg gaaactcagc 420
taaacacctt tccttcaaac tcagctctct cagcatggtt tcaggtaggg ctgttgccct 480
ccttcaccta atagcttctg gactaacatc catacaaacc aacacagcat catctaaacc 540
accaatatgg gggtaccatt tctactcaaa cttccttcat atccccaccc cccttatgtc 600
tcagccgaac ctaccctaat ccagcccacg ccacaatggt gggacaggtt ccccagtccc 660
tatgtggtct tatttttacc cttgcactcc ctgtagacca tcaattctac accctaatta 720
caaaatcata tccacctctg cctggcagaa ggtgttatgc ttttctggct cgcctaccat 780
ccacacatcc ctacacctca ccaccggatc ctctttttctt tccttccatc caattcctgg 840
cttccccgct gccaactctg ctctctatgt ctccagttta aaggtgcccc ctggaaaaaa 900
tgtaacaatt ccctcacctg tgactggtac ctgacagcca ccacaccggg gcagcaatgg 960
ctaacggttg acaaagacaa tttctttctc tctccaaaac caaacagcct tcatcaactc 1020
cctagccaag actccctatc aggcccttac aggtgccgct ctggctggca gttacccaat 1080
ttgggaaaac gaaaataccc tatcatggta cctaccttca cctacaactt tgctgtcacc 1140
cccagttctc ttttgtgtga tacaactgat atttkgccta ccagccaact ggtcaggaac 1200
ttgcaccctg gtctttcagg ctccaaccat caacatccta ccccctaacc aaactattct 1260
aattttctgta gaagcctcta tctcctcttc acccataaga aataaatggg ctctacatct 1320
catcaccctg ctaacaggat taggcatcac tgctgcactt ggcactggaa tagcaggcat 1380
aaccacctca atcacctcat accaaacact attcacaacc ctttctaaca ccgtagaaga 1440
tatgcacact tccattacca gtctccaacg acaattagac ttcctcgtgg gagtcatcct 1500
tcaaaactgg agagtcctgg acctcctaac cactgagaaa gggggtacct gcatatacct 1560

ccaggaagaa tgctgtttct gtgttaatga atctggcatt gttcatatcg cagttcgtag 1620
gcttcatgac agggctgcag agctttgaca tcaagtcgct gactcctggt ggcaaggatc 1680
atcccttcta agatggatac cctgggttgc ccccttccta ggacccctga tctttcctct 1740
cctgttacta atgattgggc catgcatatt taaccttgta tcccgcttca tttcccaaag 1800
gctgaattgt tttatccagg caagcatgca aaaacacatt gataatatat ttcacctttg 1860
ccacgtctaa taccagagcc tacgaggaaa ccattcggaa gctccagaac ccaggcccta 1920
atcacaacgc ccctatccag caggaagcag ccagatgatc aacgacgccc ttttttcttt 1980
ttatactaaa gtaagaaata agaatgttag cccaaactgc actattttgc agacccctac 2040
cattttacaa actggtcaga gtggaaaatt ccaccagggc ctgagctgtg agaaacatcc 2100
tgtcaggcag gtcccaggcc taacccctgg ctgcactaaa ttccttcatt atcagcagcc 2160
aaacacaccg cccccacccc attttcacaa caatcccaga cctctcctgc ccgggactgt 2220
aactggtcca gcctgtaagc gggaaggggg ctctggcact agctggtacc ccctctccgc 2280
aggtctttct cccaataaat ctgtgtttgc attgaaaaaa aaaaaaaaaa aaaaaaactc 2340
ga 2342

<210> 13
<211> 1666
<212> DNA
<213> Homo sapiens

<400> 13
ggtggagttc gcacctccag ctcgggccga tgtggaagct ttggagagct gaagagggcg 60
cggcggcgct cggcggcgcg ctcttcctgc tgctcttcgc gctaggggtc cgccagctgc 120
tgaagcagag gcggccgatg ggcttccccc cggggccgcc ggggctgcca tttatcggca 180
acatctattc cctggcagcc tcatccgagc ttccccatgt ctacatgaga aagcagagcc 240
aggtgtacgg agagatcttc agtttagatc ttggaggcat atcaactgtg gtttctaaatg 300
gctatgatgt agtaaaggaa tgccttgttc atcaaagcga aatttttgca gacagaccat 360
gccttccttt attcatgaag atgacaaaaa tgggaggctt actcaattcc agatatggcc 420
gaggatgggt tgatcacaga cgattagctg taaacagttt tcgatatttt ggatatggcc 480
aaaagtcttt tgaatctaaa atcttggaag aaaccaaatt tttcaatgat gctattgaaa 540
catacaaagg tagacctttt gactttaaac agttaataac gaatgctgtt tcaaacataa 600
ccaatctgat catttttgga gaacgattca cttatgaaga caccgatttt cagcacatga 660
ttgagttatt tagtgaaaat gtggaactag ctgccagtgc ctcagtcttc ttgtataatg 720
cctttccatg gattggcatc ctgccttttg gaaaacatca acagctgttt agaaatgcag 780
ctgtagtcta tgatttttctc tccagactca ttgaaaaagc ttcagtcaac agaaagcctc 840
agctacctca gcattttgtt gatgcttatt tagatgagat ggatcaaggt aaaaatgacc 900
catcatctac tttctccaaa gaaaacctaa ttttctcagt gggtgaactc atcattgctg 960
gaactgaaac tacaaccaat gtgctacggt gggcgattct tttcatggcc ctttatccta 1020
atattcaagg acaagttcag aaagagattg atttaattat gggccctaat gggaagcctt 1080
cttgggacga caaatgcaaa atgccttata ctgaggcagt tttgcatgaa gttttaagat 1140
tctgtaatat agttccatta gggatttttcc atgcaacctc tgaagatgca gttgtacgtg 1200
gttattccat tcctaaaggc acaacagtaa ttacaaatct ttattctgta cactttgatg 1260
aaaagtactg gagagaccca gaagtgttcc atcctgagcg atttctggac agcagtggat 1320
attttgccaa gaaggaagct ttggttcctt tttccctagg aagaagacat tgtcttggag 1380
aacacttggc tcggatggaa atgttcttgt tttttacagc attgcttcag aggtttcatt 1440
tgcatttttcc acatgaacta gttccagatc tgaagcccag gttaggcatg acattgcagc 1500
cccaacccta cctcatctgt gctgaaagac gctgaaactg cctgggatgt tttcgggaac 1560
aagaatgtat atttgcctta tccctgaact tggtttaatc aaatcaatgt gtgtattaga 1620
ataaaagtca cagcatcaaa aagmcaaaaa aaaaaaaaaa aaaaaa 1666

<210> 14
<211> 2027
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (294)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1976)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1981)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1985)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2021)
<223> n equals a,t,g, or c

<400> 14
```
ggcacgagtt gggagcagct ctgcgtgcgg ggcctcagag aatgaggccg gcgttcgccc      60
tgtgcctcct ctggcaggcg ctctggcccg ggccgggcgg cggcgaacac cccactgccg     120
accgtgctgg ctgctcggcc tcgggggcct gctacagcct gcaccacgct accatgaagc     180
ggcaggcggc cgaggaggcc tgcatcctgc gaggtggggc gctcagcacc gtgcgtgcgg     240
gcgccgagct gcgcgctgtg ctcgcgctcc tgcgggcagg cccagggccc gganggggct     300
ccaaagacct gctgttctgg gtcgcactgg agcgcaggcg ttccccactgc amcctggaga     360
acgagccttt gcggggtttc tcctggctgt cctccgaccc cggcggtctc gaaagcgaca     420
cgctgcagtg ggtggaggag ccccaacgct cctgcaccgc gcggagatgg gtacttccag     480
gccaccggtg gggtcgagcc cgcagctgga aggagatgcg atgccacctg ygcgccaacg     540
ctacctgtgc aagtaccagt ttgaggtctt gtgtcctgcg ccgcgccccg gggccgcctc     600
taacttgagc tatcgcgcgc ccttccagct gcacagcgcc gctctggact tcagtccacc     660
tgggaccgag gtgagtgcgc tctgccgggg acagctcccg atctcagtta cttgcatcgc     720
ggacgaaatc ggcgctcgyt gggacaaact ytcgggcgat gtgttgtgtc cctgccccgg     780
gaggtacctc cgtgctggca aatgcgcaga gctccctaac tgcctagacg acttgggagg     840
ctttgcctgc gaatgtgcta cgggcttcga gctggggaag gacggccgct cttgtgtgac     900
cagtggggaa ggacagccga cccttggggg gaccggggtg cccaccaggc gcccgccggc     960
cactgcaacc agccccgtgc cgcagagaac atggccaatc agggtcgacg agaagctggg    1020
agagacacca cttgtccctg aacaagacaa ttcagtaaca tctattcctg agattcctcg    1080
atggggatca cagagcacga tgtctaccct tcaaatgtcc cttcaagccg agtcaaaggc    1140
cactatcacc ccatcaggga gcgtgatttc caagtttaat tctacgactt cctctgccac    1200
tcctcaggct ttcgactcct cctctgccgt ggtcttcata tttgtgagca cagcagtagt    1260
agtgttggtg atcttgacca tgacagtact ggggcttgtc aagctctgct ttcacgaaag    1320
cccctcttcc cagccaagga aggagtctat gggcccgccg ggctggagag tgatcctgaa    1380
gcccgctgct ttgggctcca gttctgcaca ttgcacaaac aatggggtga aagtcgggga    1440
ctgtgatctg cgggacagag cagagggtgc cttgctggcg gagtcccctc ttggctctag    1500
tgatgcatag ggaaacaggg gacatgggca ctcctgtgaa cagtttttca cttttgatga    1560
aacggggaac caagaggaac ttacttgtgt aactgacaat ttctgcagaa atcccccttc    1620
ctctaaattc cctttactcc actgaggagc taaatcagaa ctgcacactc cttccctgat    1680
gatagaggaa gtggaagtgc ctttaggatg gtgatactgg gggaccgggt agtgctgggg    1740
agagatattt tcttatgttt attcggagaa tttggagaag tgattgaact tttcaagaca    1800
ttggaaacaa atagaacaca atataattta cattaaaaaa taatttctac caaaatggaa    1860
aggaaatgtt ctatgttgtt caggctagga gtatattggt tcgaaatccc agggaaaaaa    1920
ataaaaataa aaaattaaag gattgttgat aaaaaaaaaa aaaaagggcg gccgcnctag    1980
ngggnccaag ctttacgtac gcgggcatgc gacgtcaagc ncttcca                   2027
```

<210> 15
<211> 2334
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2278)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2290)
<223> n equals a,t,g, or c

<400> 15
gggagtgtgg ctgcagaacc caggtggcag ggctttcctc aggcccctta ctcctgacct 60
ggacgaggcc ggggcttcct caaggaggct ctctgactgc caccctgcc tgcctgcccg 120
gccctgcaca acatgcagcc ctccggcctc gagggtcccg gcacgtttgg tcggtggcct 180
ctgctgagtc tgctgctcct gctgctgctg ctccagcctg taacctgtgc ctacaccacg 240
ccaggccccc ccagagccct caccacgctg ggcgccccca gagcccacac catgccgggc 300
acctacgctc cctcgaccac actcagtagt cccagcaccc agggcctgca agagcaggca 360
cgggccctga tgcgggactt cccgctcgtg gacggccaca acgacctgcc cctggtccta 420
aggcaggttt accagaaagg gctacaggat gttaacctgc gcaatttcag ctacggccag 480
accagcctgg acaggcttag agatggccct gtgggcgccc agttctggtc agcctatgtg 540
ccatgccaga cccaggaccg ggatgccctg cgcctcaccc tggagcagat tgacctcata 600
cgccgcatgt gtgcctccta ttctgagctg gagcttgtga cctcggctaa agctctgaac 660
gacactcaga aattggcctg cctcatcggt gtagagggtg gccactcgct ggacaatagc 720
ctctccatct tacgtacctt ctacatgctg ggagtgcgct acctgacgct cacccacacc 780
tgcaacacac cctgggcaga gagctccgct aagggcgtcc actccttcta caacaacatc 840
agcgggctga ctgactttgg tgagaaggtg gtggcagaaa tgaaccgcct gggcatgatg 900
gtagacttat cccatgtctc agatgctgtg gcacggcggg ccctggaagt gtcacaggca 960
cctgtgatct tctcccactc ggctgcccgg ggtgtgtgca acagtgctcg gaatgttcct 1020
gatgacatcc tgcagcttct gaagaagaac ggtggcgtcg tgatggtgtc tttgtccatg 1080
ggagtaatac agtgcaaccc atcagccaat gtgtccactg tggcagatca cttcgaccac 1140
atcaaggctg tcattggatc caagttcatc gggattggtg gagattatga tggggccggc 1200
aaattccctc aggggctgga agacgtgtcc acatacccag tcctgataga ggagttgctg 1260
agtcgtggct ggagtgagga agagcttcag ggtgtccttc gtggaaacct gctgcgggtc 1320
ttcagacaag tggaaaaggt acaggaagaa aacaaatggc aaagcccctt ggaggacaag 1380
ttccccggatg agcagctgag cagttcctgc cactccgacc tctcacgtct gcgtcagaga 1440
cagagtctga cttcaggcca ggaactcact gagattccca tacactggac agccaagtta 1500
ccagccaagt ggtcagtctc agagtcctcc ccccacatgg ccccagtcct tgcagttgtg 1560
gccaccttcc cagtccttat tctgtggctc tgatgaccca gttagtcctg ccagatgtca 1620
ctgtagcaag ccacagacac cccacaaagt tcccctgttt gcaggcacaa atatttcctg 1680
aaataaatgt tttggacata gaaaaaaaaa aaaaaaaaag ggcggccgct ctagaggatc 1740
cctcgagggg cccaagctta cgcgtgcatg cgacgtcata gctctctccc tatagtgagt 1800
cgtattataa gctaggcact ggccgtcgtt ttacaacgtc gtgactggga gatctgctag 1860
cttgggatct ttgtgaagga accttacttc tgtggtgtga cataattgga caaactacct 1920
acagagattt aaagctctaa ggtaaatata aaatttttaa gtgtataatg tgttaaacta 1980
gctgcatatg cttgctgctt gagagttttg cttactgagt atgatttatg aaaatattat 2040
acacaggagc tagtgattct aattgtttgt gtattttaga ttcacagtcc caaggctcat 2100
ttcaggcccc tcagtcctca cagtctgttc atgatcataa tcagccatac cacatttgta 2160
gaggttttac ttgctttaaa aaacctycca cacctccccc tgaacctgaa acataaaatg 2220
aatgcaattg gtggtggtaa cttggttaat ggagcttata atggtaccaa taaagcantg 2280
catcacaaan ttcccaaata aagcatttttt tcctggaatt taaatggggg ttgg 2334

<210> 16

<211> 2608
<212> DNA
<213> Homo sapiens

<400> 16
ccacgcgtcc gcacagggct caggctgggc tcagaggcca ctgagatgcc agctccttga 60
gagcagtggg ggtgtcccag gccagagcag cctcttcctc tcctggtccc agaaaaaccc 120
ttgcagtaaa tggtggcctc tgggtggtta cttctagcgc aggcttcctt ccttcctcta 180
gctcctcccg gtgccctggg tgctgggtgc tggatggatg ggcgtcctct agctcctccc 240
ggtgccctgg gtgctgggtg ctggatgggt gggcgtcctc tagctcctcc cggtgccctg 300
ggtgctgggt gctggatggg tgggcgccac ggtgcaccct tgttgggctg cctgtgcccg 360
agtggcctct gcagctctta tgtctgcctc taatgggatg tgcgccctga ctgcctcgtt 420
cttaagggca tagtgggtcg gctaagatct gatcgccagg actgcgttct gggcaggtgc 480
tgggaaggcg gaaccaagcc gtccgtgccg ctagggagcc gagactgccg gaaagaagag 540
cggcaggagg gggcgtggtt gtgcagcccc acccccggga ggggctttag gcactgggaa 600
ggaaagtcct gttggaggaa ttcggtggct gttcacaccc gcctcgctgt cttggagtct 660
tgatctgtcg tcggcgggtc gctggcacag gactaaacat ggctgaggct gggctccagc 720
cagatctggc tggggacagc accgcgtggg cccaggatcc acccagagca ggcaggcctt 780
gctggggccc cagtcaagtc cacttccagt gaggagagcc agccgggagg tcagtgccag 840
agctctggtg gagcccagac cctgccttcc ctgagggccg cccctgtcgc cgccctgggg 900
tccctgtcct cctatcctga ctcctgcccc agggccacca cccctgaact gtgccctggg 960
gccccaccc tccacctggc cgactccatc tctgggcctg tcagtccacc tgggtcctct 1020
ctgggccctg atgcctggac cctctgtgcc aagcaccacc aagcaaaggg gatgaccttg 1080
ggcaccccca aggtgctgag actacagcca gtgagccctt gctgggggcc aaagtcatgg 1140
agggtgcctg ggcccttcca acctggaagg aggaggggag agagcaggca gcagggcagg 1200
gggaagagga ggagtgcccg atctgcacag agccctacgg gcccagagag cgccgcctgg 1260
ccctgctgaa ctgtagccac ggcctgtgtg tgggctgcct gcacaggctg ctgggctcgg 1320
cctccagtgc cgacctgggc cgggtgcgct gcccgctgtg ccgcagaaga cgcccgtgct 1380
ggagtgggag atctgccggc tacaggagga gctgctacag gccgacgggc cctcacgcca 1440
gccccgccga gaggcccctg catcctatca ccgcaaccct gggccctggg gctccctgga 1500
gcaccgctac cagctgcgct tcctggcagg gcccgtgggc ggccggggct gcctgccctt 1560
cctgccctgt ccaccctgcc tgggtgcccg gctctggacc ctgcgggagc ggggaccctg 1620
tgcccgccgc ctggcgctgc tgagcctgct ggcccttgag cttctggggc tgctgctggt 1680
cttcacgccg ctcctgctgc tgggactgct cttcgtgctc ctggaccgct ctggccgctg 1740
agcagagccc aggacagccc cgccgcaaca ggccaggggg cccagactgg cccacgtccc 1800
catgcctggg tgctgtgagg cctgatgacc aggctggaaa aacccaaggt tgggtccagg 1860
gcagtggcct tcaatcaaga cctcccattg ctgaacccac aaccagggct acccagaggc 1920
ctgaccctgc agagtccatg gctgcactgc tgcccagaca ctagctgaac ccaaggacac 1980
cagcgcccaa ggacagctcc tggaggaggc cagcccagca ggaaagtctg tgagcaggac 2040
cccattcacc ctgcggcaga cgggcaccgt actggccacg ggctgacgcc ggccacactt 2100
cccctccgag ggccagctga gcacagcagg catgaaagca aacagagata cagcagtgag 2160
tcagttcctt ggagagggca gggactccgc ccaccctgtg ttcagataag ggccagtgtg 2220
tgtccctgaa ggtcaggcca gccgggggag gggtccatgc tgcgaaaatt cagcctgcaa 2280
aggctcctct ccccacttga tcaggcccag accaggtggg ggttggcgct ggcctgtgtt 2340
gcaggggaca agggcccacc caggccttgg aacataagct ctgcccctgc acaccctcat 2400
gtcaccacac ctgggatgga gacatcaggt ggcccagcga gagatggagg actgatcctg 2460
gaacgtgaag cagctttcaa taaaccagct cctggggaaa aaaaaaaaaa aaaaaaaaaa 2520
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2580
aaaaaaaaaa aaaaaaaaaa aaaaaaaa 2608

<210> 17
<211> 1291
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1279)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1286)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1290)
<223> n equals a,t,g, or c

<400> 17
aaacctcttc tataggtaaa gctggwacgc ctgcaggtac cggtccggaa ttcccgggtc 60
gcccacgcgt ccggaaagag gaaacataga ggtgccaaag gaacaaagac ataatgatgt 120
catccaagcc aacaagccat gctgaagtaa atgaaaccat acccaaccct tacccaccaa 180
gcagctttat ggctcctgga tttcaacagc ctctgggttc aatcaactta gaaaaccaag 240
ctcagggtgc tcagcgtgct cagccctacg gcatcacatc tccgggaatc tttgctagca 300
gtcaaccggg tcaaggaaat atacaaatga taaatccaag tgtgggaaca gcagtaatga 360
actttaaaga agaagcaaag gcactagggg tgatccagat catggttgga ttgatgcaca 420
ttggttttgg aattgttttg tgtttaatat ccttctcttt tagagaagta ttaggttttg 480
cctctactgc tgttattggt ggatacccat tctggggtgg cctttctttt attatctctg 540
gctctctctc tgtgtcagca tccaaggagc tttcccgttg tctggtgaaa ggcagcctgg 600
gaatgaacat tgktagttct atcttggcct tcattggagt gattctgctg ctggtggata 660
tgtgcatcaa tggggtagct ggccaagact actgggccgt gctttctgga aaaggcattt 720
cagccacgct gatgatcttc tccctcttgg agttcttcgt agcttgtgcc acagcccatt 780
ttgccaacca agcaaacacc acaaccaata tgtctgtcct ggttattcca aatatgtatg 840
aaagcaaccc tgtgacacca gcgtctttctt cagctcctcc cagatgcaac aactactcag 900
ctaatgcccc taaaagaaaa aggggtatca gtctaatctc atggagaaaa actacttgca 960
aaaacttctt aagaagatgt cttttattgt ctacaatgat ttctagtctt taaaaactgt 1020
gtttgagatt tgtttttagg ttggtcgcta atgatggctg tatctccctt cactgtctct 1080
tcctacatta ccactactac atgctggcaa aggtgaagga tcagaggact gaaaaatgat 1140
tctgcaactc tcttaaagtt agaaatgttt ctgttcatat tacttttttcc ttaataaaat 1200
gtcattagaa acaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagggcg gccgctctag 1260
aggatccaag cttacgtang cgtgcntgcn a 1291

<210> 18
<211> 3129
<212> DNA
<213> Homo sapiens

<400> 18
cggcacgagg ggagaccgaa tggcggggtg aggggagcta ctgcgtccgg ctttgcaggc 60
cgttcctttc agggttgccg cagcaatggc acttcatcct ggcagcagcc atttgctggt 120
tgcagtgcca gttttcttggt ttctttttttg cattcctgga atcagtttca tcactctctc 180
ttggagttac caagagtcgc cagtcagttt cctctccgtg gaaggctgag tcccaattcc 240
atagggctct gtgccagact tttagtctct gataactccg aaatccttcc ttctgtttcc 300
taagctctac aggtattcta gtttttctcg caatttttca ttactaggct acatcagtgt 360
cctttttctt tctttctttt tctcactttt tatttgtacc tttagtcctc caacaattaa 420
caattcccca tgttaaattc tctctgttta aacaactaac gggctctctg tattccaact 480
agatctcggc tgatgcaaat gccgtagaca atcaatcgat caatcaatca gcaaatccaa 540
tttccctcta gccactaaag ggacttaata taattgaatg attataaaat tctgatccca 600
tttatctcaa gccattgaaa atatttttcg tgtgattata agatacgtaa tttaaaaaaa 660
tgattttcta aatcaggatt cttaccagat tatttcacag cttattcact cattgattgc 720
tttcctccca cccttgttag cttttgtatg cctgtcctgc attttaaacc aaggtatgag 780
gaggataaag taaatagtaa atggtatgat agtggccaaa actttgaatc ttttttccta 840
ttcatcatct ttgtgcaagt tggtagggag gtccactaat tcagcctccc cattccctgt 900
cccttcaaag taaatcagaa gcttcaggta aaaagcagag aagctaccca agttcttttc 960

```
atttatttta tcatcatact aataattttg ctttctgaaa tgattactct tacaagcagc     1020
aaatatattt tttaggaagt tagaattatt gatgtcacgt tttcatattc agtatcccaa     1080
gtaaatatca ggtaaattca ggaaaataaa tacaaccatt ttcttggtta attgttttta     1140
aatttaatat atgttcattt attcttttaa atatatattt cataaatggt gactatgtat     1200
tccatgacat aaaaactaag tatttttagt gggaaattct ttgtggaatc actgaaatga     1260
taactagtgt tagcaatact tctgtttcat gagacgagtc actttatgaa gattgcaaat     1320
tatttttgt ccccctctaga gttcatttca tgggaaattt aaattttatt gtcttaactt     1380
taatgttaaa catttccttc acatatggta tggccagaca tgttttcttc tttgctgcta     1440
ttttacattt tagatgtagt ccattcagga tctttttttt tttttttag gagtcagagc     1500
ttgaagtgat gcaacacttt cactctttat ctctgattta catgctaata aagacaactg     1560
atagacaata tgatatactt tggccctaga agatccttaa tgaggaaatt ctgtggcctg     1620
ttttctcttc tgtgctattt tttgtcttct aaggcaggca tctttatcag ttcagtttgt     1680
tgctgtgact agttcaaact tgttcagggc tttatgcctg aaataagtaa tcaattagcc     1740
tatatatata aatatataac caaccattac aattatctaa gaatgtcagg gagttgtgaa     1800
gtggaaacaa attaaagagt tgcaaaatta aaagagctcg tctttccaaca gaagtgtgct     1860
gacatatatt aaagaataaa tgaattaaag tcaccaaaga ggaacaggag ttaaaaagaa     1920
gaccattgtt tagatggagt caggctggtg cactgccaag gaaagcaaac aggatttctg     1980
aaggcttggt atgaatttca gcttgcatca ttccgctgga gggggtgatt tccccaatat     2040
catgttagat ccatagcttg ttcttgacag agtggcagta cctttcctcc actgcactct     2100
caccactagc atagatgtaa aacacagtaa gtactcagaa actacttgaa gagtgcagtt     2160
atcagtagag atgatcgaaa catttgtctt tctagggaat atttttgcct ttcttcttcc     2220
agaatcctct ggttataatg tgctcactgc taggtcacca gtcataaaac attatgtaga     2280
ggttactggt cattatccta atatatttat caaaaaatct ggagtatatg aaactgcctt     2340
tcattgtaac attagacaaa aacatttatt ctatcaaata cagacttaaa actgccacca     2400
aattggaaga atatgatctt aaatttaaaa aaaccccata tacttaaaca caataatcta     2460
tctttatcta ccttcctaaa cattaatgca tgagacttct cttaatatca tgaatatgca     2520
ctatgatttt tatgttacat ctttttcttg tttccattta tgctagtgaa atttattagt     2580
atccttcatt gaaacactat tatttttcca ggaggaaaat attttatttc ctttatgaaa     2640
agggtgcttt acttctgaaa tacagaattc attttgtttc ggattctgtt tgtttgtttt     2700
cacatcaact tcattctaaa tgttcattca aaattatttt tcagacttga gttcaggtga     2760
aaatgttaat ggaattaaaa agtagttagt caaatgaaat ttcaatatat aagtcaaatt     2820
tgaagaaaac tgaattaata aaggattcta agtttataaa gaaatcaaaa ttatgctttc     2880
aaaaatatta tgtaactgga gaaagtaatt ttattttgag atctctcatg attctttaat     2940
atatattttt tcttattagt atgcaacctt ttggtaacat atataggaga cagttaattt     3000
tggtaagact acataattca tacattcttc atcttgacat acatgatcaa atactttata     3060
acgtccacta gccttgctct tgtccactgc aatggaaaaa aaaaaaaaaa aactcgaggg     3120
ggggcccgg                                                             3129
```

```
<210> 19
<211> 3629
<212> DNA
<213> Homo sapiens

<400> 19
ccacgcgtcc gccagaggct gggaaggaaa aattattccc atcttaaaat atcttaaaaa       60
tatgtacaga tttattgtaa atcaaaattt tccctcataac tacagcccct tcccacacat     120
aaaattcccc ctaaatcagg aacataatgt acagcctgtt tttaacttgt atttttccat     180
tcacactatg tcacaaaaaa attctcatgg tgatccatga tttcacaggt cctgtccatg     240
tgtttcctga gaagacagtc ctggaatgga actactaatt caaaaggcat ttttaaggct     300
gttacacata ctgccaaatc ggccttcagg aggatgacac aaattccacc tatgtcatct     360
gagcgtgcca ctatctgctg ctattgcccc atgtttgagg ttttgtccct tctcctcatt     420
ctcatgggca actgtcaaca tcaccaccac tgtgatcctg aaaagaaagg ctcagaagac     480
atagacagtc tgggattttt ttttttccct accttttcttt gcactgtagg gaaggagtga     540
gatgtggctg caggattggg gaatagctaa gtcagaaatg agcagcagtg caactgtggc     600
aatcttggag gggggtctca gccatgaaag aaaacagggg gtgccttgcc agctggaggc     660
tgcagaatct tagcttgggt gttttgcctt ctccgtggaa ctgacagatg acaggaatga     720
cgtggagtat tctcatcaag cgtctcagca tagtcagtct ctgagatggc aaactttagg     780
caaagacacc tgggctgaaa ggtcccacat ttaaaacttg tcagtcagat aactgcccac     840
```

caccaccctc tgtaagatac ctagatatgg gaaccccaca ctcttcccca ataagactct 900
tgtatgactg aaagactttg tggttaaaaa catatcttaa tctaacctgt attttccctg 960
ctgcaatttc agccttttcc tatcttttca tggtgaatga acaccacaca ggctttcaga 1020
tcagacaact tctggctccg tcatttacta gctgtatcag ttaacaccag ctgctgactt 1080
cactttctgca tatgcattcc aaaattagtg tcttaaaata acaactactt attacttttc 1140
acaagcctaa aagttggctg aatggttctg ctgatctgac ttggttaatc ttggctggac 1200
actgtctgat tcagcatagg ttgactgtcc tctgcctcat gtctcttatc atccataaat 1260
tgcccaggct tgcttgcctg aaggcagaag agttcccact agcaggagag ggcaagcact 1320
tttcaatgca caagcacctt tcaagcctct atttgcatca agtttgctaa tgtcccgctg 1380
accaaagcaa atcatgtggc ttacttcgga gtcagtgtgg gtaggcatta cccaaagaaa 1440
gtggctatag ggaagcatga agatctagag ccattagtac aatcaatcta ccacattaac 1500
tttgtgacct tgggcaattc ccttagcctc tctgagcttt aactctataa tctataaaag 1560
tgcagaattt ttttgggatt ctttgctata atgtatgtaa aatgtctgct acacaataaa 1620
catgccatat ttattaattt tcttttctcc tccttttcat catttgaatt ttttcttaaa 1680
tgcatatata tatgtgcata tatatatgtc catctcgata tatatatatg tatatatata 1740
tatatatatg acttactctg tcatccaggt gagagtgcag tggcatgatc acagctcact 1800
gcggcctcga cctcccaggc tcgagtgatc gtcccacctc agcctcccag gtagctggaa 1860
ctacagatgt gtgccaccac acccagctaa atttttttgt atattttata gagaagggtt 1920
tcattatgtt gctgaggctg gtctttaact cctgggttca agcaatccac ccaccttgac 1980
ctcgcaaagt attgggatta caggcatgag ccaccatgcc tggcccttaa atgcatcatt 2040
cttatacatt cctttataca tacaaagctc gaagataata ataataaaca ttattgccac 2100
ggcttctgtt gaatccccaa ctcctagcct gtgcctaatc aagtgtgccc tcaattcatt 2160
ccaatggtct ggaatttgaa gactaaagga atcaaagggt atctcttccc tttgttcctg 2220
ggaccatcaa gttgtgaaat gacctcttgg cttttctgatc tgggtccact accacaaatg 2280
aaatagaaag gagttaacac atttgcatta actgatgatt cttaatagag gcaataaaat 2340
gagaaacccc catttcctaa tttaaatgtg gctttgggga taggataagt atcctggccg 2400
ctccttagct aatcaggctc cagaagggac attaattgca gccagcgcat cctgctgggg 2460
agacccaagg ctgccagctc ccttgctgag aatggaatag aattttaatt ggctgtgaaa 2520
gcatcatggt aggaggtaca gggaagagtt ggtctgctcc cccaaagcag gttagggaag 2580
ctccaaggga aaggactcaa acaggtgcat ggcagcaaga acctcccatg ctcaggggcc 2640
ttcccagctg caacaccaca gttccaattc cagggctgga ctccagccta ggtgaaggac 2700
cttctcacac ttgggcgatt agtactggag cacggagcct gtgaatcttc tcatctctgt 2760
gcttcccccа acttccatga gagaagcacc acatagttac tgtcacttgt attgtcaatc 2820
ttcgacttca gagaggtctc caaatataag ctcaactccc cagtgtactg tgtgtgtgcc 2880
attagtccat gtgtatggtc tgaagcaatg gcacagcatt cctgtactgt tgtttcagag 2940
caatgtgaat ttatttcact cacaataaat taatctaact atgcttaggg caaagttgtt 3000
ctcatggtaa tgagtatgtc cttttctgcca tggcaatttc tggaacacac atatagacaa 3060
gaatgacatg tgaaggtcaa tagatgagac tatgaaaaac aagacaatat agctttttag 3120
cataaatgta caatgatgca tgtggttttt ggagattgtt ggacaaatta cttaacctct 3180
tggtgcctta gttttctaat tattaaaatg agggcaacag tattgctgat ctaataaggc 3240
ttttggaaag aataatgaga tgtaaagagc ttagaatagt gcagagtctt aataaacatg 3300
tcttcgtgat tccttctagt gaagtgacat agagaagtgg gaccagtcat tgacccaccc 3360
aagctctgtc aacctagtgg tatagtaaat ctgttggcaa aaagcaaagc agaacaacaa 3420
aaaaacgcaa gcaaaatcat tgctttcagg aaactatttt gtgagacaga agcttgataa 3480
aaattcaaaa tttgcagtaa actctacttc attaatactt taaaactcac agcaataaac 3540
cattacttag aacaagtaag cagttttgtt tttattgtgc attttgatat ttattttcaa 3600
aaaaaaaaaa aaaaaaaaaa aaaaaaaaa 3629

<210> 20
<211> 1144
<212> DNA
<213> Homo sapiens

<400> 20
tcgacccacg cgtccgcgct tgacttgctt ccagacaaag gttgtctcaa gtttgttgct 60
caaaccgagt tctggagaac gccatcagct cgctgcttaa aattaaacca caggttccat 120
tatgggtcga cttgatggga aagtcatcat cctgacggcc gctgctcagg ggattggcca 180
agcagctgcc ttagcttttg caagagaagg tgccaaagtc atagccacag acattaatga 240

gtccaaactt caggaactgg aaaagtaccc gggtattcaa actcgtgtcc ttgatgtcac 300
aaagaagaaa caaattgatc agtttgccaa tgaagttgag agacttgatg ttctctttaa 360
tgttgctggt tttgtccatc atggaactgt cctggattgt gaggagaaag actgggactt 420
ctcgatgaat ctcaatgtgc gcaatgtacc tgatgatcaa ggcattcctt cctaaaatgc 480
ttgctcagaa atctggcaat attatcaaca tgtcttctgt ggcttccagc gtcaaaggag 540
ttgtgaacag atgtgtgtac agcacaacca aggcagccgt gattggcctc acaaaatctg 600
tggctgcaga tttcatccag cagggcatca ggtgcaactg tgtgtgccca ggaacagttg 660
atacgccatc tctacaagaa agaatacaag ccagaggaaa tcctgaagag gcacggaatg 720
atttcctgaa gagacaaaag acgggaagat tcgcaactgc agaagaaata gccatgctct 780
gcgtgtattt ggcttctgat gaatctgctt atgtaactgg taaccctgtc atcattgatg 840
gaggctggag cttgtgattt taggatctcc atggtgggaa ggaaggcagg cccttcctat 900
ccacagtgaa cctggttacg aagaaaactc accaatcatc tccttcctgt taatcacatg 960
ttaatgaaaa taagctcttt ttaatgatgt cactgtttgc aagagtctga ttctttaagt 1020
atattaatct ctttgtaatc tcttctgaaa tcattgtaaa gaaataaaaa tattgaactc 1080
atagcaggaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaact 1140
cgag 1144

<210> 21
<211> 1443
<212> DNA
<213> Homo sapiens

<400> 21
ggaaccattg gcctatattg ggttggatct attattatga gtgttgttgt ttttgtgcca 60
ggaaacattg tagggaagta tggaacacga atttgccctg ctttttttctt aagcatacca 120
tatacttgtc ttcctgtctg ggctggtttc agaatctata atcagccatc agaaaattat 180
aattacccct caaaggttat tcaagaagcc caagcgaaag acctgctgag aagaccattt 240
gatttaatgt tggttgtgtg tctcctcctg gcaactggat tttgcctgtt cagaggtttg 300
attgctttgg attgcccatc tgagctctgc cgattatata cgcaatttca agagccctat 360
ctaaaggatc ctgctgctta tcctaaaatt cagatgctgg catatatgtt ctattctgtt 420
ccttactttg tgactgcact gtatggctta gtggttcctg gatgttcctg gatgcctgac 480
atcacattga tacatgctgg aggtctggct caggctcagt tttctcacat tggtgcatct 540
cttcatgcta gaactgctta tgtctacaga gtccctgaag aagcaaaaat ccttttttta 600
gcattaaaca tagcatatgg agttcttcct cagctcttgg cctatcgttg tatctacaaa 660
ccagagttct tcataaaaac aaaggcagaa gaaaaagtgg aataaaaata ttacttcatg 720
ttcctccttt ctaaattact aacttttgtt atactggtac tgatattttg tcccatttca 780
ctctcttctc atacgtgagt acttaagaat atgtacattc ttgctctgca ctgtatgtgt 840
gagctatatg gtattgtgta aatttttttt gaaggaaaat ggaaattctt gagaaacagt 900
ttgtttaaag aaatatattc aaaatcattt gtgaataaac ttgatcatcc atctcaatat 960
tgtttgacat ataaaataat tataagtgta aaaaattaca atttagtgcc aacagtagtg 1020
agcatgaaat gaaactattc aaaagagaat atggcctgtg catattaaaa aattcaaaac 1080
agtgaatgca gactggagga gtaacttttg caaataagat gaatatgctt cattattaaa 1140
ctcaatataa aaggcaaatc atcagaatat ttttaaatgt tgtttgaaaa atgttttccc 1200
aaggaaagtt tattattttgc tgctgtttca agaaaattac ttttactaaa ttttttttgtg 1260
tgaatttaaa cagctaaata gggatcagta actttatctc tatccttaat gaacatttgt 1320
tttattggtg gctggaaata tttctattgt atttctgtgt atatttttaa taaaattatt 1380
tttggcctct taaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaactc 1440
gag 1443

<210> 22
<211> 1053
<212> DNA
<213> Homo sapiens

<400> 22
cttcgctggt gggaagaagc cgagatggcg gcagccagcg ctggggcaac ccggctgctc 60
ctgctcttgc tgatggcggt agcagcgccc agtcgagccc ggggcagcgg ctgccgggcc 120

gggactggtg cgcgaggggc tggggcggaa ggtcgagagg gcgagkcccc tgtgtcctca 180
gccatcccaa gaagggtttg ctggtccctc ctttcccccc gtcccacgag gccacctggg 240
ccagcccctt gtcctctgcc ttctgctggc agaggagcag ctggactggg gcctttggca 300
cagcagccgg tgtctcctgc gcccgcctcc cccatggccc catgcagccc caggggcttc 360
cccctgccc atggagtaga gcccgagatc ctggccacta tgccagttct gacctcgcat 420
cccctaccc cgagcccatg cagtctggga acatgccgcc ttctctccag cctctgtgcc 480
tttgttccag gtggtctcac cctcctgtcc ctggctgggc taggtggtcc tgtccaggct 540
cctgcagcgc cccctcact ttgacactgg actaggatgc agcctccctt ctgtgtcccc 600
ttgagggtac cctgggtccc ctcatcaggg gcagaggcat gaaagagtcg gggctggatg 660
gccaggggct tctgggcccg acgcctagtg cagcccctgg ggtcgtggtt tgacatttgt 720
ctgcctggtg caaacaagga atccttgcct ttaaggtgac aggccctcca caggcttcca 780
gacttgaagg aaaaggttta agaaagaaaa caaaaccaac agttagtggc cggtgagggc 840
ccaggctggt cagcgtcccg tcttgcacac ccaggggcct ccctttctgc tggagtcccc 900
tgtgtcctcc accacccccc gccgcccagc atcctacctg gactgcggtg ctacgagggc 960
ctgcgggcct ttgctgtgtg ccaccctccc tgtaagtcta tttaaaaaca tcgacgatac 1020
attgaaaaaa aaaaaaaaaa aaagggcggc cac 1053

<210> 23
<211> 741
<212> DNA
<213> Homo sapiens

<400> 23
gtagacttct ggaccttgra tgtcactgag tttaagagaa aggtagtccc aggactctgg 60
tctagcagct gagtaaggct caggccttag aatggcttag cttgctccat tgcaatgcat 120
catcctggat gttaaaatcc agctgtctct ctgaaamcta aatatgaaag actgagattt 180
agtcaacttt gctgagattt aatttacata taataaaatg aatcatttta actgtgcagt 240
tcagtaagtt ttgaaaaatg tctatacaga ttcatgtaac tgccaccaaa attgagaaag 300
gacacttcca ccatctcaaa agattctgtg tgttcctttg tagtaagtct cttctacccc 360
atccctagac aacagctgat gtgctgtcat tgtacacata tattagcttt gcctgtccta 420
gaacttcatg ttaatgggaa gcatcctgta tgtactgttt tgtgtctggc ttcttcagtg 480
tatttttgaa atttatccac attgttgtgt gtatccaaag tgtgttcttt ttcattgcca 540
aataatgttc tgctatatga atatattaca aaatatttgt ctgtttatct attggtggat 600
ttttgcattc gttccagttt ggggctatta tgaataaagc ttctgtgaaa attcaaaaaa 660
aaaaaaaaaa aaaatgaccc tcgaggggggg gcccggwacc caaaacggag tatttccctt 720
tttccccccc cccgcccccc g 741

<210> 24
<211> 946
<212> DNA
<213> Homo sapiens

<400> 24
ggcacgagcg aaagcctctc tcttaacaac ggtgccgcac agctttgccc ttgaaagcat 60
ctctactgga ccggaacaca ctcatgtgcc ccgctccctg acccagccaa ggctgccctt 120
tcatctccaa ggctgagatg ttgccggtgg tcccatgaga gcctgcccat gggctcaggt 180
gccccctttac cttctgctgg atggacatct ggctgtgagc caggctgggg tcatggccgg 240
ggtgagcgga ggcaggggtg gacggaggct tcgagggccc atcactagta gggtcattac 300
ctcttgccaa cagccggggg tgggagtctg ggtctcgctc aggccagagc ttctcaacct 360
ggagtccctg ggggtggctg ccaaaggtgt gtatgacaag cacgtatccc tggacatttc 420
cggggagagg tctggggctt tggtcacatt ctccaagggc tgctgggctt cggagcagtc 480
ccccccccatg tctcagccac tacagggtcc ctctctctcc ttgcacccca gaccctccgc 540
tgccctggta atgagcagaa ggaaagtctt ggggtgtgct caaagtcagg agagcaaaat 600
atgccaggca aaagctcccg ggaaaagccg gaggagtctg gggtggccac cgggatgtgg 660
agcagcgagg gcaaagacgg tgaacacagc cctccagctg tctgagcctc agttttctaa 720
tctgtagaat ggggatgatc atacctgcct cacaagaatg ttgagacaat tcacagagac 780
gttctggagc ccctttcccc cgagaccggc attcatgagt ctgctgggac cagaaaaccc 840

atctcagggg cccagcgggg cacccaggag agtctggcgg tgcaagcgct gtataaacca 900
caagcgttct ccaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaa 946

<210> 25
<211> 831
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (10)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (11)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (15)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (27)
<223> n equals a,t,g, or c

<400> 25
catcnacggn naccnctact ataggtnaag ctggtacgcc tgcaggtacc ggtccggaat 60
tcccgggtcg acccacgcgt ccgggggaaw tcccagtcga tttttccaag cagtactccg 120
cttcctggat gtgtttgtct ctcttggctg cactggcctg ctctgctgga gacacatggg 180
cttcagaagt tggcccagtt ctgagtaaaa gttctccaag actgataaca acctgggaga 240
aagttccagt tggtaccaat ggaggagtta cagtggtggg ccttgtctcc agtctccttg 300
gtggtacctt tgtgggcatt gcatacttcc tcacacagct gatttttgtg aatgatttag 360
acatttctgc cccgcagtgg ccaattattg catttggtgg tttagctgga ttactaggat 420
caattgtgga ctcatactta ggggctacaa tgcagtatac tgggttggat gaaagcactg 480
gcatggtggt caacagccca acaaataakg caaggcacat agcagggaaa cccattcttg 540
ataacaacgc agtgaatctg ttttcttctg ttcttattgc cctcttgctc ccaactgctg 600
cttggggttt ttggcccagg gggtgaactt tatttcattt ccmcaggttg aaactgaatg 660
ggcagttcat gktaaaatcm cttttcatgg aaagagctct atgtaacagc ataataaaac 720
tgsctaccta gcagcaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagggcg 780
gccgctctag aggatccaag cttacgtacg cgtgcatgcg acatcatagc t 831

<210> 26
<211> 1294
<212> DNA
<213> Homo sapiens

<400> 26
ctgcagaatt cggcacgagg ttatttcacc tctcttggcc tcagtttctc tgtgaaatca 60
ggaattaaca tggtctctga gacccccttc tgatggtgaa tgtgtggttt ggtgattttg 120

tggccctgca tcatgacctt atttagttct ctttcaacag gggatgtttt actgccttgt 180
aaaatcctcg tgggactgcg tgtctttata ggagccaggg tgtaaatgaa cagaattcag 240
attggttcta atatatttta cctctaaaag aaagggcatg gggaggccat gaccttaaag 300
caggtttttt ctgttgtctg tgaagcctgt gatgattgag agtggctggg actggcggga 360
cgatgtttgg gtggaagagg gaggccatct cgatgcgccc cgtcccgggg aggcacccag 420
cctgtaagga ggtgatgtct atctacactg agcgcaagga ccctgaaccg ggggaggctg 480
aggcggggcc tcttgattcc caccctgtcc cccagtggct aggctagtgt ggcccgggaa 540
atgacttcca tctctccctc caggcatatt taataagagg ccagtatttt cagattctgc 600
cgcttctgga cgaatgtctc agagagctgg gaggcgccct ggaggatgga acccttcctt 660
gagcgttgtt gaggtgtgtc gggggtgccg tggcacaggc cccctccct ggggggcatc 720
actgttccct tgctctgcat ccccgctgtt tcccctgccc ctgaacaggc gtggagatgt 780
gcacgggaca ctcggaggcc ggatgctcaa cagagtggag tgccgcgacg gtgtggccgc 840
agcctggctg tgccttcacg acgcagctgc aatcagagga gctgtgggac gctgtcccat 900
gtggacacag cccactcact gggtgctgct cctgtgctgg gcgctgcact tttattgtcg 960
ttaaaaattt atattaagat gcggccgggc atggtggctc atgcttgtaa tcccagcacc 1020
ttgggaggcc gagacgggcg gatcacgagg tcaggagatc gagaccatcc tggcttacat 1080
ggtgaaaccc cgtctctact aaaaatacaa aaaaattagc cgggtgtagt ggtgagtgcc 1140
tgtagtccca gctactcggg aggctgaggc aggagaatgg cgtgaacccg ggaggcggag 1200
cttgcagtga gccgagatcg tgccactgct ctccagcctg ggcgactgag cgaaactccg 1260
tctcaaaaaa aaaaaaaaaa aaaaaaaact cgag 1294

<210> 27
<211> 1656
<212> DNA
<213> Homo sapiens

<400> 27
ggcacgaggt tcacagcacc tgatttgcaa ggcagctata caagttcctg gactcttgta 60
gttccggagt gttttcacctg accttaagcc caccccatcc atctttaatc aagaaaccat 120
gtgctttccc gcatgcctgt gttccccccct cacgtgtctg ctgtctgtgt ggaagcctgg 180
cctggcgcat gctgtggtgc actgcatgct ggaacccgtg gagtttgcac gcgtggtaca 240
gtatgaggcg ggtcacgttt tgtagtgtgt gccgtgggct cccgagaaac aagttaaagt 300
gtgtgctgaa atagatttta ttgacataaa ataagcctta ttgctaaatt taagagaatg 360
tgttacaaat gtttttttgct aaacatcagt attgattatt ctacatgatg tacttattga 420
cataacaacc tgaaattctt gattttagac aatttctcct caagttgatt cagctgcatg 480
actctcagaa atcagtcatt ttttattgta gattgctggt tttcttcctc tagtttgtat 540
cgtgtatttt cctcctgtgg agaaaatgtg gttggcaaga aatgccatat tttaaagctg 600
tatcgtggct gttaatgcag aaaacaccag tgtactgcag gctgtttggc agtggggctg 660
gggctgagtg tcctgccctc agtggcctgt gtctgtgctc ttgttcgctg acatgcagat 720
acaggggcag atctgagggt ttgatggagt gcagaaggcc acacgtgtgg ctttctgtaa 780
atgcagaaac atggaatcct tgagcagaca cttgtcttct ggagcacctt gcatggattt 840
cgcctcctga tgcttcattg ccgttaatag agtggtggtg gttgtgttat gagaaatttt 900
gtctaacctg gcttctgaaa tttctcaaac taaatattca tgctgttttg tgtttttctt 960
aatgactgag gctagtgata ttactcagaa aagtaacagt aacttgggtc ttctgagcgt 1020
caggatgttc accatttaac ttgttttctcg ttagtgtcta gtacgtcggc tttcggtagt 1080
gtaggtgtgt gttctgtgtc ctttcccgtg tgtgcctgca ctagtggcag cctctgcttc 1140
caggtcagtt tagagtagac tggctctggt attgctagca agtagttgct gttacccagt 1200
gtagccatga agcccagctc cttggatctt gacatatatg ttccaggcaa agtacgtaat 1260
ccagacgttt ctaactcttt ctagatgatt gcaattgttc tccatgttgt ctgttaggcg 1320
ttatgttaat tctcgatcta acagtgtgcc tgtaacatat atggtagtga agagacatca 1380
catgcagaga ccgttttcct tttatcaact acaggtccgc tatcgacgag agcacctttc 1440
tgctaggcag tcaccctact tcccgttgtt ggaggatttg atgagagacg gcagtgatgg 1500
tgctgctctc ttagctgtga ttcactatta ttgcccagag cagatgaaac tggatggtga 1560
gtggagaatg cttcctgaaa cagatccgaa aaggcttaaa ggaaaattat agtgtacatt 1620
gatccacata tatattaaaa aaaaaaaaaa aaaaaa 1656

<210> 28

<211> 1350
<212> DNA
<213> Homo sapiens

<400> 28
gtgacttcta tattcaatag atttttgtaa atgttaaaac atctatattt aaatgttaaa 60
acactaaata tagagagggg ctttatttca atcatagagc aacaacaaaa ataatgctta 120
tagctaaact gcctgttcta gaaagcatct gcttttttcat gttattccta aatcctcttg 180
tcatactttt gtcattgaac aatgctctcc ctctcgtctt ccatcctcat tcagaatttt 240
tagaagacca caatcgtgga gatacactac ccagtattgt ttgatacatt tttatttgat 300
aaacattcag tgcaggaaac tgtgatttgc tatatgttta tgtatataat cttattctgt 360
agtcatcaga atgttaatgt aaggtacatt tgatttttat tttttacatg tgtagttttc 420
tttcttcaca gtcaaagcat ttatattatt gggggtgggg gcagggaatt aagttggtgg 480
gctcgaaaat ccattcatat gtatctgtct acaaatgtct ggggataatt taaatttgaa 540
acctaagtta tatatagttt ggcaatgctc ttcttcaata tttacaataa taggatgatc 600
tacaagaaaa taagttttctt tttgcaaatt tttatcatac taaagttgtt cttttaattt 660
agcatatcta aaataggatt tagttcagtt tagctcacac aggtgttttgc tgacattcat 720
tggccattta atacagtgtt gagtggtttct ccgtaaaagt ataagtgcta acactacgaa 780
gaaatgcaca cgatcattct tgctcacttc tataacaaac ttacataaaa tggatttaaa 840
aattcctact cacagcctaa aacttctgga gttcactacc tttttttcaa attcatagta 900
agatcacctg tgtatttttat attttagtaa agccaattat gaagtacaag tatcatacac 960
gtacttttga gctactatta tttgaaaaaa atctgccaaa tagcatcttt aggatatatt 1020
tacattttca ctcatctaaa aagtatacaa aaataaaaag tggaaaaagg tatcttctga 1080
atgttcaaga gcatcctata gtgccaaata ataaagcacc atttttttct tcataaccag 1140
gattaaaatt catatatact gcagggcaga catacatatg atagcttgtg ctgattaatt 1200
taaccccatt tgtaaacaga tgaaaatttt attttcttat ttcatttata agatggctca 1260
atgtattggg aggcttcttt tttattacag aaagtgtata ttggtatata ataaatgaac 1320
ttttcaaatg aaaaaaaaaa aaaaaaaaaa 1350

<210> 29
<211> 1766
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1743)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1748)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1749)
<223> n equals a,t,g, or c

<400> 29
gctcagcgcg ctgcccggct ggggacccgc gcacctgcag cgcccgctgc tcggccctgc 60
atcctgcctg ggcatcctgc gcccggccat gacggcgcac tcattcgccc tcccggtcat 120
catcttcacc acgttctggg gcctcgtcgg catcgcgggc cctggttcgt gccgaaggga 180
cccaaccgcg gagtgatcat caccatgctg gtcgccaccg ccgtctgctg ttacctcttc 240
tggctcatcg ccatcctggc gcagctgaac cccctgttcg ggccccagct gaagaatgag 300
accatctggt acgtgcgctt cctgtgggag tgacccgccg cccccgaccc aggtgcccag 360
ctctcggaat gactgtggct ccactgtccc tgacaacccc ttcgtccgga ccctccccca 420
cacaactatg tctggtcacc agctccctcc tgctggcacc cagagacccg gacccgcagg 480

cctgcctggt tcctggaagt cttcccagtc ttcccagcca gcccgggccc tggggagccc 540
tgggcacagc agcggccgag gggatgtcct gctccaatac ccgcactgct ctggagtttg 600
ccctctttcc caaggagatg ctgctgggga gctggtatgg gtggggtctt tccctttaca 660
gacggggcag atgccaggac tcagcccatc ctgaggagga cacgtgtcct catggagagg 720
gtgctccggc ccaggcgggg gagtcggtgc ccagtcagca gctctgccac catcctgctg 780
ggaactgggg gggcctctat tgggttatag gcaaggcctt ttctctggca tggaattgtt 840
aattttctga cacgtctaga tgtgaaattt ctgaaaatgt tgaagcagag aaacattcac 900
acacaaaaag caacatagtc atgtgggtcc agatggcctc agtcctagat gttggcaccc 960
tttgctgtgt ctcctcagag tatcctgttc cgcctcctgc cacctggacc tccctcagtg 1020
gatgtcttcc ctcccccgac cccagcctgt cagtccgagc acagtgcagg tttggctctg 1080
acttgggcct ttggctgcag tgggggtgga tttcagagcc tctcatggca gcatctaagt 1140
gaccagagct gggatgagag aggggaaggg gcaatgtgag tggcgctatg ggacgggcca 1200
gccctgctcc tgagccagcc ccgccctctg cccccctggcc ctgggctctg tgctagggat 1260
ggtgaagaat gggggcgtgc carcctgcag gagtgggaag caacacgcag gggtcccgga 1320
cctctcmagc cttgccctya cgcttatccg agctcccagt gtggttagca cagagctcac 1380
ccaccttgcc tggctcccag ctggggcctg tcctcactgg tgctccaggg gaagaaacga 1440
cagcctcact tctgtatgga ctgctgatgt ggcctgccat cctgttcagc gggcattgtc 1500
tttggagcag caggagacta ggatgcctct cactcacatg ccagttcctg gctggccagc 1560
tgctcagggc tcaggctggg gcctcccatt gacatcctcc ccctacactc cctctctgag 1620
cctccgtcgc ccctcctgtt gggtaagggt gttgagtgtg acttgtgctg aaaacctggt 1680
tcatatataa taaataatgg tgatgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 1740
aanaaaanna aaaaaaaaaa aaaaaa 1766

<210> 30
<211> 2790
<212> DNA
<213> Homo sapiens

<400> 30
ccgtcttggg ctactggcag ctcctctcct tgggctcctg gctgccaggc gttggtgcca 60
cttcttaaag gcctggaacc agggaggaga ggaaatgcta ttgttgtggg ctttctccgg 120
ggtctgtgct gtgcctgcta gagcaacccc tgtacccagc tccttttgtc cccagggccc 180
ctccctctgc cccaagcagc cagccagtct tgcctaggcc aaatgcacaa gctcagaata 240
gatctgatgg tgagctggga agctgtactc agagcagagc aaatgaggga gggggcgctc 300
aggacccagg ccctccatgg gctaatgtga gtggcagcca tgcctcatgc cacaccttct 360
tcgcaaactg atggaccggg tgggcctggc ctgagctggg gccacaaatc aaatcaaggg 420
ctccagcatc cagcctgtgt gttctgtaat ggaactgacc ccctcccctg aaaacgaaag 480
ggccccgggg ctggcaatca gggaaagctc cacggtgcgc ggctgtggca caaacttctg 540
gaaggctggc tgactggaat gcagggaaaa cggcagtacc tgggaaagga cccacccatc 600
ttcctgctgc tgtaactgct gagccactcg cagtcccagg atccgctgcc accacgtctg 660
ccaggcccat ctcaggtgcc actccctgag ctttgggggac agttggcaga gaaggcctct 720
tgtgctcacg ctccccccgca gtccccagcc cttctgcctt tctcccccga cactgctgca 780
ccagagtgaa agggctatgg caaggggggtg tcatctgagg agtattaaga atgcagattc 840
ctgggcctgt cccccaaggt tttggagtca gtaggtccaa gggccatact tttgagaggg 900
gtttgggtta agtatgaggt gaaatgggag atggtcagtg tggagagggg tgcacccact 960
caccagggtc cgcaccagct gctctgcccc ttgggcatcc acccagtgct gccatgccac 1020
tgccaggcac ctggcctgct gggaaccccg cagcccgtga agcagtgcct cgaggcaccg 1080
gcgctgcagg tacttcctcc tgatggccaa gagcatcgtg acccttcagg gccagaagga 1140
gggcagagcc atgggcctgg gcctgctttt ccaggatcct gcaggaacga gcactggcca 1200
gagagggccc agctgtagcc atggctcagg caagccccctc agcccttgcc cccatccctc 1260
ggacccacca aactgcacac acagctcctc ttaccgtagc ctccgtttat gggccttgct 1320
ttgggctttg caggctctgg gctcagggct ggagtgcgct cttggtccct ggtccctcgt 1380
ccacaggggc aggcctggga cccagctact ctgtccaggc cactgtggcc agagctggaa 1440
ggcagggcag agggaatgtt ccctgcaccc tggaaagggg agttgagtca caagaggtta 1500
aggtgggtcc aggaaggcag ctgctcttag tgcccgccta ggagttgagt acagtgagga 1560
gggtggagga aggtgctgag cttagccttg tgccctgccc ccatctcccc aggcctccag 1620
cctctcccgg ctgcctgcca cccaaagaga aatcacaggg gcggggcagg aatgcaaagt 1680
gttttctcag aacagctgaa acattccgaa gagggaatgg atggggagaa tggtcaatac 1740

acataagacc gtgtcccaag gagctgattt ccaggcccct gaggactgga gaccgcttca 1800
cccctgcact tcagacaccg tttgtccccc ggggcaaggt ctccttactc tgagcccagg 1860
ccgttccccc tggcttcctc cgtccaccca ggctgcactg cagtgatggc gcggggaggca 1920
ccagctctgt ggcctgtgtc cagcagctgc gggtctgaag gaatagccag agaggagcac 1980
ctgaacccca tgggcttgga cttcctgggg ccccgctggg atttcttcgc tgctctagct 2040
ggcaggacac atcccggcct cttcttccac ccattccccc atgtggctga agacattcca 2100
acaatggggt gggcccataa tagttagccc tcagtcagtt cccggagcac agccctggga 2160
gggggctatt tctctcccca ctgaaaacat ttcaaagctg agttacttgt ctgaggcctc 2220
atccctcgga agccgtctga ctccagagtc tgagcccccg gctagtaccc tatagagagg 2280
gggctctcca aaggggctgc tggggcatgt gtgcctgtgg cagaaaagag gagaccctgg 2340
aattcagcac cctgggtgcc attcccagcg tttagtttct agaggcctca gtttctccat 2400
cagcttatgg gatccttgtc tttactgaca agaatggaat agaaatgtaa aagtactctg 2460
aaaagcaatt gccctgtaac ttatctagaa agaaaagacc ctgagactcc agaatctgct 2520
gttgccatag ccccatatgt gtgaattctg caactagcca aggctagttc ctttcaattc 2580
catttaaaaa acaaaaacca gcaggtgtgg tggctcatgg cgtaatgggc ctgcccaatg 2640
ctttgggagg ccaaggcagg tagatcgctt gagcccagga gtttgagaca agccctggca 2700
acatagtgag atcccatttc tacaaaaaaa aaaaaaaaag gaattcgata tcaagcttat 2760
cgataccgtc gacctcgagg gggggcccgg 2790

<210> 31
<211> 1417
<212> DNA
<213> Homo sapiens

<400> 31
tttttttttg attaaaaaaa tttaaaaaat tataaaatga tgtcctatat gagtttaata 60
catgacgttg gaggagcata gagatagacc tagactaggc atgtgtatgt gtgtgtgtgc 120
atgtgtgtat gcatgcatgc ttatgcatgt gtgtgtgcat gcatgcttgt gtgtgtgtgt 180
gtgtgtgtgt gtagagcctt ggtcatcccg acagagcaaa gacacaggag ggtggcacat 240
ggaagaacaa gtgactccac cctcccttgc acagttaaaa tctggccaag tgagagggga 300
gatgggagag gggagagggg agaaaggaga agaggcactg actggagggg ctgaagcttt 360
gtccctcctg ggcaggcgtt ctccatccac acccctcttc ttggatagag aggataagca 420
ggccaaagat gcacgaaacc tgagttccac tgtagctcca gacttctaga aaagtcaaca 480
gcccctgtat ctctagctga tcctctgttg ttcaatgtct gcattaccgc actgggagac 540
acttgacaga ttgggcctgc cgcaggccat agcagacatt gggcagccct agaacgaagc 600
tgactgtcct tggaatgtgc cacaggggtg tgacgccccg gccaactcca gtgctgccta 660
aaatggcctc ttgcaacatt cccctcttct catcttaaat cagggacttg aagccacaaa 720
atggcaaata cacagttctg gcagtcgttt tgagtattgg agaaatcgct ctggccatct 780
gttttgtctc cagcatgttt ctcacggaat atccacggat atatccatgg atataacaga 840
catcctgcca aggcagagct tggctcttga gaactcggca agctcagtgc ttgcctggat 900
tcctgcctca tgtcccatcc agtgtttgga gaaaagctct gagagaaaga tgaatgtctg 960
aggccacaca gcctagaagt agtcaagagc acaggctcta gaactagccc cacgtgggct 1020
gaaatcccag caccagcgcc tgccggctgt gtgatgtagg agagcttctt accagctctg 1080
tgcctcactt gtctcacttg taaaatgaga ataagaattg gccgggctcg gtggctcacg 1140
cttgtaattc cagcacttcg ggaggctgag gtgggcggat cacttgaagt caggagttca 1200
agaccagtct ggccaacgtg gtggaaaccc cgtctctgcc aaaaatacaa aaattagcca 1260
ggcgtggtgg cgggcacctg cagtctcagc tactcaaaag gctgaagcag gagaatcgct 1320
tgaacctggg aggtggaggc tgtcagtgag ccaagatcac accactgcac tgcagcctgg 1380
gtgacagagc aagactctgt ctcaaaaaaa aaaaagg 1417

<210> 32
<211> 1906
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (617)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (940)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1461)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1901)
<223> n equals a,t,g, or c

<400> 32
tctggagctc caccgcggtg gcggccgctc tagaactagt ggatccccg ggctgcagga 60
attcggcacg agcccagctt ctggtggttg ctggcaatct ttggtgttcc ttggcttgta 120
gatgcatcat cccaatctct gccttcattt tcatgctgca ttctccctgt gtgtgcatgg 180
ctgtctctgt gtccaatttt tccctttttа taaggacacc artcatattg gattagagcc 240
caccctaatg acctcatctt aacttgataa tctgaaagca ccctatttcc aaatagggtg 300
acattcarag ggtgttagga cttcaatatc ttttgagggg acacagttca acccataaca 360
cctaccaacg gttttctggaa tcatctctca aaataaacta tctaaactct aatctttgwt 420
tcagggtcag cttctagcag aactcaatgt aagacaccct tttaaagatg gtacctcaga 480
ggtacagaca gattgtgaac cttccctagc acagtgtaac aagtcccttg caaaaatcct 540
gatttgagtc aacattgtaa tttcttgctt aaatctaaga atatgcctyc cagcttcttc 600
caagactatc tgggggmagt tgkttctagg gtggctcaat ttattcgttt tgaacgctga 660
tggccgtgca ccacaccgtg gctcaatggg tgttgaggac acgttcacat gcaataaatg 720
cacagggctt tgccattagg tggcattagg ggaaggacac ttycagcata ctgcagaggc 780
attctcttcc agcctggttg cctgtcaagc acctgctgag atgactggcc cagacggaga 840
ttgtggggtt gctgagccag ccctgtcccc tccttatctc cggaagatgg aataaatgcg 900
tgtcagaagg gagggtgcct cccatctcgg grgcaccggn gttgcccttc agaaaaacat 960
tgcctgcaca ttttgtagtc ttgaaatgaa tctgagtggc aattcaagcg ggcagagctt 1020
gttttggatt ttagacagtt ctacctgcgt gctcctcttc tctgctccag ctctgacatc 1080
tcggctccac atacagtggt ctgaagtggc atacggaccc tgagaagagg agaggcaaag 1140
gwrgcagctg tggctggccc ctcctgccyt ctggtctcct tggctggtga gggaagaaca 1200
aacacagttg tgtttccagg tcacagctgc cagggctcca cctgtggggt gggtggctcc 1260
agttctgttc tgagttaaga aatgctgcaa atacgttctc cttraaagag mcctaggaat 1320
tgccatttct ttctgcagct ttctgtagcc aataagcatt tgaggaactg ragaagggtt 1380
cagccctgaa ttgcaaggga aaactgtgtg agtgtgtttt agttaagaaa aaagttaatt 1440
ctagtgagac ctgcttgttt ncaaaacaga tgtataggcc agacagatgt acagggatga 1500
ccttgacttt cttttgtcat tgcaggaagg tggggtatgt atgacccctg gttaagacca 1560
ataggaggcc gggcgcagtg gcttacgcct gtggtcccag cactttggga ggccggggcg 1620
ggtggatcgc ccgaggtcgg gagtttgaga tcagcctggc caacatggag aaaccccgtc 1680
tctactgaaa aaaaaaaata cagaattggc cgggtgtggt ggcatgcctg tggtcccggc 1740
tgctcgggag gctggggcag gagaatggct tgaacccggg aggcggaggt tgtggtgagc 1800
cgaggtcgcg ccattgcact ccagcctggg caacaggtgc ggaactcggt caaaaaaaaa 1860
aaaaaaaaaa raactcgggg ggggmaccga acccgggtcg nacatt 1906

<210> 33
<211> 543
<212> DNA
<213> Homo sapiens

<220>

<221> SITE
<222> (367)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (376)
<223> n equals a,t,g, or c

<400> 33
ggcacgagaa aatattgact cctatctggc cttcatcaac tgacctcgaa aagcctcatg 60
agatgctttt tcttaatgtg attttgttca gcctcactgt ttttaccttа atttcaactg 120
cccacacact tgaccgtgca gtcaggagtg actggcttct ccttgtcctc atttatgcat 180
gtttggagga gctgattcct gaactcatat ttaatctcta ctgccaggga aatgctacat 240
tatttttcta attggaagta taattagagt gatgttggta gggtagaaaa agagggagtc 300
acttgatgct ttcaggttaa tcagagctat gggtgctaca ggcttgtctt tctaagtgac 360
atattcntat ctaatnctca gatcaggttt tgaaagcttt gggggtcttt ttagatttta 420
atccctactt tctttatggt acaaatatgt acaaaagaaa aaggtcttat attcttttac 480
acaaatttat aaataaattt tgaactcctt ctgtttaaaa aaaaaaaaaa aaaaaaaaaa 540
aaa 543

<210> 34
<211> 1452
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (283)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (596)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (607)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1275)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1284)
<223> n equals a,t,g, or c

<400> 34
gaattcggca cgagattaag ttgtgcactt taattgggtg aattgtacat gtragttata 60
tatctractg tagttgtwat taaaaaacaa caggaggcca tgtgggctgc taggagtagc 120
aatgtctgty cccagccagc aggtagagac cagggctgga cagagkagta tgggctgtgc 180
tgcagattat ttgtggtacc caactgttgc ataaaacagg gtgtgatctc ttgcattgct 240
atgcatgagt ggattcccag taaattgtgc caggctgcct gantgatgtg tggcttgtgc 300
tttggatcgt aatgcttacc tatgctactt aagttacata cgctgtggcc tttgtggcca 360

ggactgtggg ctactacctg kagtgattcg ttaggggaaa ggacccacag cctgtgcagg 420
aggaaaaaag catctctgag tacagggtgg atgagctgga tgagctgccg ggcaagagcc 480
acgcacaccc aggtggtgag tcttaaggat aaggtggaat ttgccccata gctgtcctgg 540
acagaaactg cccagagaag aatgaatgga ggacataggg ctctgtggtc ccaccntttt 600
ttgggnacc tgtgactggt cctgttacca tgtcaactta gccccaaacc catctctgat 660
tgacttggtt gcttattttg gcacattctt gctccacaca gccacataca tactggctgc 720
tcctcsaagg ccaggcagat gcagcagctg ttgggccagc aaagaggaar gtcctggaag 780
gttctggcct gaacgctgca tctgttgtgt gacagccaca actgctcagg cttccttgtc 840
tgtgggtgca ctgtggggag gagtgttatg ataagaacat tggctctcag tctccctggg 900
gagaagtttg gcctcacgtg ggatttgggc gttgccttta ggaaggctct ctgcatgtct 960
agttccagtt tgtactggga agaattaaaa aagtctgcca gcttctttag tttgtcctgt 1020
cttttgtgat gattctttct gagatcccct cctatcagct caggagtggg attttctgga 1080
gaaggaaagt gtttttctgt tcctcactgc tcaccttggg gcattcagga acatgggcct 1140
gatgaatttg cttgaaggca gtctgtaatc ccatcacttt gggagccaaa gargcggatc 1200
atttgagctc aggagtttga gaccagcctg agcaacgtga caaaaccctg tctccaccaa 1260
acaacaacaa caacnacaac aacnacaaca acaactacaa caaactgggc tggatggcac 1320
gctcctgtaa tcccagctac ttgggaggct gagatgggag gattgcttga gcccaggagg 1380
tcaaggctgc agtgagccat gattgcacca ctgcattcca gcctgggtga cagagggaga 1440
ctgtttcaaa aa 1452

<210> 35
<211> 2908
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1653)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1655)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (2850)
<223> n equals a,t,g, or c

<400> 35
gagctctaga ctgatcgtag taagttttgt gacttaacaa tgaaagaaag tagaaagatg 60
ctttgggttt tcaaaatgtt gtttttttaaa attgttcttt gggtgaattt actcagtgct 120
gcttttgagtt gtatacagaa acaaatgttg ggaattgctc ctcagaaatg tgttcctaag 180
ttgtgttttc aactttacat catgaggtga agcattaggg aaagagattc tttcgatttg 240
tttaataatc taattataca gaccaaagtg ctttacgttt ctgctctatg ttaatgtttt 300
agaatggtga ttttgctgat taatttagac ctggcaattg aaataatgtg ctcagaataa 360
taacatggtt atagttcttg tatgataaag tattcaattt cagaatagtg ttggaatcct 420
gagtttgaat aatgtgttgt atttagaaac atagccctat ctgttttaaa caaataattt 480
gttggccgat tgtccatggt tgagcatgac aaaaatacct cgtcgaaagg caagcttagg 540
taactgctgg caaaacactg ggtgcactat tttttctggat aaaatttata gttatttttct 600
atattaccct tcaaaaggga tctcttcagg ttaaaaatca cgcttatgct gaagtctttta 660
tctggtgtta actaaaaatc tcatatgggt tcataaccga ggtcactaat aattcatttt 720
tatcacttgt aaaaatttgc tcaaaattcc aaaaaaatat tgatttgttt tttagtgatt 780
ttgcaggctg accccaacct aagttttgat aacatctggt aagtcagtat agttctgtga 840
cttcatgttt taactaagaa ggaaaattca tagatattcc tattagattt tataaacctt 900
caaaagtctg aaacttaatt ttgagtctaa attttctgac actggcccct tttaatattg 960
taagtttttg ttcacttttct taagtaaaaa aaacatttaa ttactagtta gcccttaact 1020

gggaaactca ggtaatgaac tgctgacttt tctaaagttc tttaactgat caattctgta 1080
tagagggata tttatctaac cactttccgt attttacaag tgctcttttct aaaaaggaat 1140
aactattata gctctatttc cccaatctct ataggactca tgagagattg cttgtgtaaa 1200
tataaaagca ccatatgtgt tcttaactcc tatggctgct tgaagctcat gatgaaaaag 1260
tcttttttgtc agttttaatt gttaagtaca gaacaaacaa ttgtttggtg atggcctggt 1320
tgaaagagag catataaata tatcccagtg gaactcacca aagaagacca cacctcagaa 1380
attattgcat tttctcatta tgtgttgggt ttgatttgct tttgtttttta atgcagctct 1440
tttaatataa agattcttga tacagtgaaa tctcttattt caagtgtaag ttattcttca 1500
cccacccctt cccctgccat tgtatttccc atctgtttca aggagtttca acaatttaca 1560
ttgcatcgta tgcagtaggt actgcttttt cagaaagacc tggaaaacat acctgctatg 1620
aatatttttgt tcagatgtag ccatttacct ggntntcaag gttgccttct gtggagagga 1680
tcttagacaa aaatcttcct tgtatttact tgggttaagt gaagtccaaa ttcttacagt 1740
atgctatttc aggatttctg atattaaaaa agaaaaaaca aaatctttat atcttcttatt 1800
aacacttccc ccaagaaggg ttgtgctgtt atttattttc tattataaga aaagttcatt 1860
ctttaagtag tttcttttac ctctaatcta atttcatacc aaatacctga tcaatagaaa 1920
tgatatattt aagcagcaaa gattcctaat ccatcattat gaaaagtgtc agcatactta 1980
gtagtgaaca gataaagtca atttgaatat aattccactt tgtttttaga gactaaatta 2040
agattcaatt aacattatcc tatgaatttct gaatgtgata atgtgattca aacagtcaaa 2100
ttttattaag ctcttagtaa ctcaggatag cattccatac taacctcaag ttagcaaaac 2160
aaattagtta aacagcttgg ttcttagcag actgcttaaa agatcaagaa aatttttctca 2220
tctttttcttt ctacttagaa acattgcaag aaaccttgga cagtcttcac cagacctgcc 2280
atgattttat aagatttagg cctcagtgac atgctcctga aagtttcctg ccagccatcc 2340
aaactaagca tccactcatt ccatcttccc aaagtcactc accgataaag gtagcatcct 2400
taagttcatt tttgaaaggt ggaggaggat ctccccctgc ccaaaggaat ttttttatca 2460
gaataccttg aaaggggggt atataaattt ggaaaactta atttcttggc tgtgtttgat 2520
aacagttcct atgcatggtt tttaatgtga ggtaaatttg tttcttttctt cagaatacct 2580
ctctccaccc cccaccttat tcttcctctt taatgaatat ttttattgga gctcaaactc 2640
catgacttac gtgctcacta agttttcttt tttccccttg tttactctgt ctgtatgtat 2700
gtcaaaagct ggcaaaacct ctaaaactgt caagaaaatg cttgaaagtt gatttgtcat 2760
agtgcaaatt catgataaaa tgtcttaatg ttatttggat atgtagtaca tagaaacaga 2820
aaaataaagt catttttata acttaaaatn aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2880
aaaaaaaaaa aaaaaaaaaa aaaaaaaa 2908

<210> 36
<211> 953
<212> DNA
<213> Homo sapiens

<400> 36
aattcggcac gagaaccaag gtactttcag ctgcagactg accataccc tgtccacctg 60
gcgttgctgg atgagatcag cacctgccac cagctcctgc acccccaggt cctgcagctg 120
cttgttaagc ttttttgagac tgagcactcc cagctggacg tgatggagca gcttgagttg 180
aagaagacac tgctggacag gatggttcac ctgctgagtc gaggttatgt acttcctgtt 240
gtcagttaca tccgaaagtg tctggagaag ctggacactg acatttcact cattcgctat 300
tttgtcactg aggtgctgga cgtcattgct cctccttata cctctgactt cgtgcaactt 360
ttcctcccca tcctggagaa tgacagcatc gcaggtacca tcaaaacgga aggcgagcat 420
gaccctgtga cggagtttat agctcactgc aaatctaact tcatcatggt gaactaattt 480
agagcatcct ccagagctga agcagaacat tccagaaccc gttgtggaaa aacccttttca 540
agaagctgtt ttaagaggct cgggcagcgt cttgaaaatg ggcaccgctg ggaggaggtg 600
gatgacttct ttacaaagga aaatggtagc agcttcagtg agaaactgcc cttacaaaca 660
gtcccttctc tgctgtcaat ccaatactgc tcccaaatcc tgttttcagt gttcatttcc 720
ctcaaggcag gcgctgggct cccacgaccc ctcaggacag atctggccgt cagccgcggg 780
ccgctgggaa ctccactcgg ggaactcctt tccaaagctg acctcagttt tcttacaaga 840
acccagttag ctgatgtttt attgtaattg tcttaatttg ctaagaacaa ggtaataagt 900
aaatttttaa aaagcctttc tgctgggttg gattaaaaaa aaaaaaaaaa aaa 953

<210> 37

<211> 3864
<212> DNA
<213> Homo sapiens

<400> 37

```
acccacgcgt ccgtttctga agcaatgtta atcctactag ccaagcatat cacttagtcc     60
ccactgtgag atgagggata tgtgcttaaa ttgtgaaaca aatatatgag tcaggtattt    120
ttcctttgag tccaagtggt ttatgacttt ctttcctgtg ttctttgtat atgtgggagt    180
tttataattt cttatcaaga atgaaaggtt ggcctgtgtt cttactggtg caggctgtca    240
catttctctc tgttgcccag tcaggtgcta tggcatgtgc tgcttctggc gtagtgtact    300
ctgtggatgt accagcatgt tcttcaaggt catgactgat tttccagacc tttggaattg    360
agataaatgt taaatttgta gctatctctg aatttcttcc agatactttt cttcatttgt    420
ttgtttgtag ggtaaacata cctgatagca gcaatttaag catacccctta gaatgaccat    480
gtatggccag tgcacctgaa tgtgtgttcc aaggtaggga atccaggaat ggccaactcg    540
gagattcatt ccttactatg ataaatatct gagcccctg ctcatcctgt ggaacatggg    600
cttattgggg attaaggccc tgagttttag gttaaatgaa ggttaccaga tggaggtcat    660
taggggagg gtgttaaatg aaaatgcttt ataaactgca tgctgtttgc aagcagttgc    720
agtttcctg cccagcccgc agccactggc catgcagtca tgttgtccag cctgccgcca    780
ctggaccatt tctgtacata aggcagttct cctgtccgcc tgccaccagt tctccactct    840
ctccccatat gtaagcccct agtaaacccc atgtctcatt tgctgcctct gggtctttcc    900
ttcagcctct tgaacctagt gccttcccctg ctgaggttaa taggggtaca gcacaacagt    960
gttgtaacac agaaagtgat atttacaggg atatctctct cacaatatct cttaggaaag   1020
gtaaataaaa tgttcacaac ttgtaggtga gtaattccctt agataagttg tttcttaact   1080
tgggaggagt ttgggaagga acctaagcag gctgcagagg ctgggcatgg gagcttgtca   1140
tggctggaag ttgaaatggt caactccagg cagatctcct ggggcaaagc agcctccacc   1200
accagtagcc cttcctttct gtctttcata ccccactgct ccatctgaag cctgaacccc   1260
ttccagaaaa ttgatggata gatttttttt ttcggctata tatagtttcta gaggttagaa   1320
ctagatataa ttcagtctag aagatttctc cttccccaga aatgattgtt tttgtgcaaa   1380
gccccgccaa aatagtacgg agacttagac tgagttcact catcactaac aattaacttt   1440
ataaacattc aacaagtagg acaactatta ttactgttac tcagaacccct tcgctctgta   1500
tatacagttt gatttaagat gccacattta catggcattt tcaaccttca aactctagca   1560
gattttaaaa ctaggtggat gaaaatagaa tcattctaat aaatgtagtg tgtcagattt   1620
gaaaaatcat ttggtgagca ggatctctgt aaagttatat gggccacgta tacaagacgt   1680
aactgaagaa aattaattca acagagcatg ccgtacttga acgacataga gatttactcg   1740
aactgaacta actcaagctg cagaactccg agcaagcctg gattgtaaaa gtctgggtga   1800
aaatagatgg agtatgccct gactgaacct ctgtactgcc ccacatgctt atacaggtgg   1860
gggattggat ggctgttagg tgatcattgc attctctttt ggatccctat tgagaagaaa   1920
tgataagaga gggaaaggat atggggcaag aacagtctga aaaagaaagg ataaagttct   1980
cagactctct tcacactcta agaagaactt tctgaaaagc ttggattagg tctggcaatg   2040
gatataataa gcaaaggact cttggaatgt gttcttggct cttagcccca cctctgactt   2100
tgagcaaatc agctgatttc tctgcctgta aaataatagt ccctctgata ttaatactta   2160
cctcatgagg ttatttagag gatagtgttg gtaataatgc cttgtgttta catcattcct   2220
ttcacagaga gctcaaagca ctttacatgc attgagagag aagcttctcg tgaagagtaa   2280
atagaagtgt tcactttttg gaaatgaact taggccataa gagcctgaat ttaatgcatt   2340
gcaggaagaa atatggtaca tagtgaacca gtgggtcaac tgaatttttt gttccactaa   2400
gagtcccctc ctggctcctt gttttgtgaa ttgaggaata tggtgagtcc ctacacctgg   2460
atgggaaatc ccacatatgc aattggaatg gtctctcacg acacatgcag agattgaaga   2520
acagtctgga catttttga taacgttctt tgggccttgg tagtagctga aagacacctg   2580
agaaatctta gctcagagct acagaatgac actaatggat cccagaaata gaaatgtaga   2640
tgtggagtgt tttatctgtt tatttcacct caattcaacc aatactcctt gagtgccttt   2700
tatatacatg attttgagtg atgtggagaa ttaaaagagc cccacatgct caggaaagtt   2760
aaccctggtt ttagcaagga aaagaagtag gatttccaaa tagataagtg caccgggtat   2820
gtggaagttc agaaaagctt cccagtattt cagcccatct acttggccat tctcaaccat   2880
gtattactca tgtaccaagc agtatgctgt tcacagagag atccaatctc tgccttaggg   2940
atccttgggg aaaacatgta caaagagata gttttagcac attctagtaa aggcagtgat   3000
caagggcacc tagccttacg tggcaattta gggaaggtac cttggaggat gagacttctc   3060
ctaaagtctt aagaattgaa aagaacatgg gaagggaatt ccaggctggg agagtagtat   3120
gttcatacgc cctcagtgtt taaccttctt tgaacaaaaa aatggccaac tacagaaagt   3180
ttggtcttat tgtagcctaa attgtactta ggggtacgag tgagaaacag ggattaagat   3240
```

```
aaaggacctg ttttgctgtc ttgtttactg ttgaatagta gtatgaagta ggtcctgaaa     3300
aactatgttt ttggggaaaa aaaaaaaaag actgaatgat atgttgggtt taagtccttg     3360
caggcaggct atccaggtaa ataaacatgg aaggtgatgg gaggtaatct gggctggaaa     3420
tacagatttg gaagtcaccc catatcagtg gtgtttaaaa tcaagagcaa atgaaattgc     3480
acaaggagaa tatatagaat gaacaaatta ccatgggtga agccttgagt aatacagaca     3540
tttaagaagc aaacaaaaga caaggaaccc atgagggaga ctggaaagga aaaaacagag     3600
aaataagaaa aaatgagagg agagaattga tacatttcc tcaggtgtgg cattatggag      3660
ttcactggtg tctcatcaga gaagtttcag tccagtggcc agggcagaat gacattgtgt     3720
cttgttttaa agtaaatggg tagggtaaga aagttgagaa gggttagcac aaacctctct     3780
ttcaagtcac ttgccttaga agagaaggaa gggtatggtt tctggggtgc aacccaggtt     3840
caagaagcaa aaaaaaaaaa aaaa                                            3864
```

<210> 38
<211> 1411
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1395)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1397)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1401)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1408)
<223> n equals a,t,g, or c

<400> 38

```
ccggtccgga attcccgggt cgacccacgc gtccggcgtg aaccaccgtg cctggccgga       60
agtctttaaa aaataaagtg attctactct tctaagctta cagagaccag accaggtgaa      120
tgtaactggg gaaaatcaag atggtacctc tctgcattat cccgccagac actgtatttt      180
atgcattcat gtctaggata cagtgtgaaa attaaaaagt ttagagggca gatgcaattg      240
tggcaagtga cctgccaata aagcaggtgc agctatagaa gctggcatag gtatatccct      300
aatggtgctt tctccctggg cttgtctttt tgttgttttt ttcccctata ttcagagctc      360
cttgagaagt gataaacacc tccagctttc taacatcctc cccacaccat ctcaccatat      420
ccatctccca gcatccatct gcattcagct aagggcggga aactgaccta gtgcctgtgt      480
tgcagaccat ttctgaggtc tccaccatcc aaggaggcac agccgtcatt actgtcctcc      540
atgccttcag cagccccct cacagctaag gtacatacca cccccttctgc cgcgcctcca      600
cccctggcac caaggtcttc tgctgcttat gtctaaaggg atcacctata tttaactgcc      660
tcagtgacct aacctctttc ttctcatgtg ccagatgtta agatgaagga ggaatacmac      720
acatactcaa gcctcagcct gtttagttgt tttcactggg gctcgctttt ctgggacggt      780
atttattatc agactggcaa gcctaactcc ataggtttac aggaagtagg gatattttta      840
taaaacaatt gtgtcctccc cacattttgc tatgttaata tttgcttcta acaatttgca      900
gctgtttcac tttttcctca tttgtctcta agttgaaggc tttgttggag gggacagagc      960
acaggaacag ccttgacagt ctgtaattat tgtacagata ttttaatagc atataaataa     1020
gtatattcct tttattttga aacaaaaatg atcagacact gccttttgtg tgtttgctgc     1080
ctgtggcatc ctttttaaa aagactgtta catattaaaa tagtgtacat atataaatat      1140
tacctctttt gctgtacagt tgtgatagag actgaagatt ttattttttg tgtgcttttt     1200
```

ataagaaaaa aattaataca ctaaagaatc ttgctgatgt gattgtaatg tacctatgta 1260
acttatttac ttttgaatgt tctttctgtat ctttaaacct tttattaaat aaggttttaa 1320
aaattcaaaa aaaaaaaaaa aaaaaaaaag ggsggccsct ytaraggatc caascttgcg 1380
tacgcgtgca acganancag ngtcgagngg t 1411

<210> 39
<211> 1182
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (496)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1162)
<223> n equals a,t,g, or c

<400> 39
ctaagctggt tcgcctgcag gtaccggtcc ggaattcccg ggtcgaccca cgcgtccgat 60
aagcacccat gtctttgaat atgaatgtat ttgtaaaata ccacgtttca tgtgtgaata 120
tgtgctttta ctgtacatag tgctattgtg caataggtct tatgctgttt tcactcaatg 180
tgtgctaaga tctagcccca ttgactcttc tagaaatgca gtattgcttt gacctgccat 240
gtggcactcc acaatgtcaa ttgcagttta cacacattgc ctaaagtggg ggacacctgg 300
gtgcccctga ccccttggca ccggatacag gccacgataa acatcctttc gtgtgttccc 360
ttctgtgctt gtgtggcatg tgtacccagg atgggcctat aggtcacaga ggtcagtttc 420
tcttttggttt tccagatttt ctttagaacg gtgactgacc ctcctacttg aggccgcctt 480
ttctccttat ccttgmcagc acttgtattg ccagactacc taatttttgc cagtctcatg 540
ggtagatagt ggtscagtgc tttamcatac attcatctga tcagcattaa tttggggaat 600
tttttcactt agcctttctg gtttcccttc ctgtgcattg cccatttttct catggagttt 660
cttatctttt ttggtttatt ctcaggagtt gcttgtacat tcttgggcaa ttgcagataa 720
ttccaagaat gcatatttgg gctgggtatg gaggttcact ggtaatccca gcactttggg 780
aggsccaggc agaaggatcg ctgcagccca ggagttcgag actagcctgg gcaacatagc 840
gagacctcgt ctctacaaaa aaaaattaaa aaggggggctt tgggaggcca aggcgggcag 900
atcatgaggg caggagattg agaccctcct ggccaacatg gtgaaacccc gtctctacta 960
aaatacaaaa aattagctgg gcatggtggc gcacacctgt agtcccagct actctggagg 1020
ctgaggcagg ggaatcgctt aaacccagga ggcggagatt gcagtgagcc aaggttccac 1080
cactgcactc cagcctggcg acagagcaag gctccactca aamaaaaaaa aaaaagggcg 1140
gccgctctag aggatccaag cntacgtacg cgtgcatgcg ac 1182

<210> 40
<211> 2457
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1622)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1713)
<223> n equals a,t,g, or c

<400> 40
gtcgacccac gcgtccgccc acgcgtccga ttataataaa aagtattatt aggacaggta 60
aactcatcca tctactgtga gctgctggct tggagaacga cttttgagga gccagtttcc 120
tgaggagaaa tgcttttata aagcactcat tgctttgtaa aaggagacaa aactgatcct 180
aaatgaccac tccagggttg ctgattttgt ttctggctca tgtctgccta gtaaaccacc 240
agcaagctgc tgaaccaggc tggaaacaac attgttgcaa ctgggaggga catagagtac 300
tgtgaaagca gcgttccaac acatcttcac ttttacaaag ggataggcag agacttccaa 360
catagaggtt cttaaacttc gaggggttac aatccccttg caaatatttt tatagctatg 420
gaccctctcc tcagatctac agccaacatt ttcagtgcac cttaggaggt cattttagtc 480
cacgcctctg aaaaagctgc actccaacgg ctgaagagca agccatacgg ccgagaatgg 540
ggctcccttt gccttcatga aagctacttc cccaacact aagactcagc tgtacgtttg 600
cttagctcag tcacatttac attcttctgg gtgaactgta ccttttgagt acctgccttc 660
attttctaga atcagaccta acaaggtcag tagaagcctg ggcagcagcg ggcctggaaa 720
gacgaggcag ccagcatgaa ctgctgttct ctcccctgacc acaaggcgtc gtcttcctcc 780
agggtcaagt aattgttctt gttccgcctc acaggaatgt ggggaggaag gacgttaaca 840
ctataaaatg ctgcgtccta ccttaaactt gtactgtgag aaagctggaa acttccacct 900
gtacagtggg tctggtttgc atgtttagtt tcatttgtgg gaactgcttg tccaagagtg 960
agctcaggtc agggcagttt gtgcctatga gaattagctc agctatcagg caggttttta 1020
gacacctttt taaaatgtgc tcgtgtttgg tttgttttgc ttactgtcag tcctgggtca 1080
atcaaaggtt tgtaagggtg agaattttta tgcactgcta tatcgcaagt gcttaaaaca 1140
gagactggcc cagatgaggc attcttcaaa tgtttcgttga aatgaatgga caaactctta 1200
ggataaatcc taatttgttg gcaactgtta tttgatttta gaaggcaaac tgattttatt 1260
tcagagaggg gaaggggagg ggaggctcat tagcctcttg gtagaaagag gactatttct 1320
gcaaatgaat aggtttccac cttaagtagt gacagtcctt aacttcttat tatggagtga 1380
gtcttgaccg ctttccaagt tcaatagaag ttcaagattg cctctcagtg attagggaaa 1440
ttgaagcttt taaagctcct ggtctcagta attcctcaga ataaacctct ttaaaaggga 1500
tattgatgga aatgtacaat taccagtaat tgaggtttta tctgagggga tggagatgat 1560
gaaatggttc cttcttggaa gttgttggca tttggcttt atttttcaca aataaagtga 1620
anccatttaa aacgattgac aacgattata tagtgccatg tggaatacaa tagatattaa 1680
tttgtggttg gtttttctgc ctgctttaaa tgnaatgtat tatgtttctg ggttcctttt 1740
ttagctgtaa aaatacttcg tcactaaagc atgaaattta atcagcagtt gttcttcaag 1800
ttcctgaaag ctatarragt ttctcatgac ttgagtggtt ttttccctgc ccaccagagg 1860
agaaagccct tgtagaattc tgcagtgtta caagtgttcc ctacaaaaac tgaaaccatc 1920
agctcctctt taacaagttg gctttttaaa agcacgtaat tacaatttaa tggtattctg 1980
taaagtggtg ctctaggcat aatttaaatt ctttttaatg actatatttc ttcaaaactt 2040
tgaaagaaaa atgtgttctt tttgctgcat cctttgtaag aagactgcca acagaggaaa 2100
aaggacttta caaattaaga ccatcttggt ttcatttcca caaagatgag aacaaatcat 2160
ggtgttagga aaggatcctt agaagaacac aagaatttga aagcccttgg tggttatcac 2220
tactatattt catatttcca cagaagtgac ttagccaagc tctgcatttt gagcctgctg 2280
actttcattt aaaaggaatg aaaggctgaa aatccaggct gctgtgtctg tagataaagg 2340
tcaaaccatg tttgagttct tcactgttgt gtccacctaa ataaaactga gtaagtaatg 2400
aaaaaaaaaa aaaaaaaact cgaggtcgac ggtatcgata agcttgatat cgaaatt 2457

<210> 41
<211> 1847
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1279)
<223> n equals a,t,g, or c

<400> 41
gactccttag ctaagcatac aaggtaactg gccctgcctt gctgttttgc ctcacctgct 60
aacgtgcaca tgctctgcca cgtgtacctg ctgctagtgg gacatgctga mttctcagtg 120
ggcctcatgg gccagaggaa gttgcgttgt tccataaact cagctctcag aagtgctgtt 180
tcctctgcct ggaattcgtc tatctgcttc aatagctgaa tgctgcttat ccctcaagac 240

tcaattctgg tggcacctca gttctgaccc ttccccagtc tctctttccc ttctccccac 300
aggctgtctc cccttgatat tttgcctgct tgctacccat gtccttttct cctggtgaca 360
gtgctacagc ctttccttgg ggaatcaacc ttgtctgaga gtggacagaa attatccacc 420
cctccatcca gggatgaacc aatgacctgg ccaatcacag tcgctgtgat tggtcctggg 480
acaggcagga gactcaagct aggccacaga gcatcagtgc tgagactgaa actactggga 540
aaacaatatg ctcttttctgc ctgaggcgcc tagtggatac aatggaagcc ttgaggcagc 600
tgatcatctt tgccttgaga gaggtggctg cctaagaagg aagccaattg agaaaaagca 660
ggcagagaaa aaaaacagga acagatacaa caggcaagac tcagctgatt tctcatgtca 720
gcaaatacaa gagaaggaga ctggtcaaga tagagatgtc tgatgatact gagctcccga 780
ctccagccac tcctgaagtc attcctaagc ctctcgttac acaagccaat acatgatctt 840
gktagattaa aaatagtttg actttggtgt tgccacttgc cgtagaaagc atycacgatg 900
atacactcty ccgtgtgcty ccacacccta atttaaccty ctycatagca ctgactcgga 960
ggccctatga gactgkgaac tctytgaggg caggaaatgt atcttattcg tctccaaggc 1020
cacgagactt ggtgtatgat agatattcaa tacaggtttg tgaaataaaa aatgaaggaa 1080
tgtttatcta gaaattaatg aagcttttca tttacttttt tacttcaggg cctttctgcc 1140
aagaactctt aagatgcctt aggatcttgg ttgcagccag gtggctgtcc tccccagagc 1200
ccttgttgtc agtcctctga agtcattggw cctggagata acagggaggg caggtcccga 1260
ctgctgagaa agtccaggnc cccggatcct accattacca tgctacctgt tcacttgggc 1320
ttcacccaag gccacactca tctccgtacc ccttcccaac agtggtgagg ggcaggagca 1380
cctggacatc aagaatcgag tgcatgcctg aacctgtcca ttacccatgc ttctgcagct 1440
ttgctcatgc tttccccctcc ctgaaacgct cttcccttgt ctacttaatt attcaaagct 1500
cagaggaaaa aaaatcacct gctccaaaac gtcttccccg aaccctgcag ggaaccaaat 1560
tcaaaagcca tcagaaggcc gaggcgggcg gatcacttga ggttaggagt tcgagatcgg 1620
cctggccaac atggtgaaac cctgtctcta ctaaaaatac aaaaattagc caggcatggt 1680
ggcaggtgcc tgtaatccta gcaactctgg aggtgacgca ggagaactgt ttgaacccag 1740
gaggcagagg ttgcagtgaa ctcagattgc accactgcac tctagcctgg gaaacagagc 1800
aagactaggt taaaaaaaaa aaaaaaaaaa aaaaaaaaaa actcgag 1847

<210> 42
<211> 2597
<212> DNA
<213> Homo sapiens

<400> 42
ggcacgaggt tacacctcac cccctacttt cgctgactcc agaccccaga ggctgaggga 60
cagtagatat gctgcctgcc attgcctctt tccttgtgca tgtctgagtg gtgccagcct 120
gatcagattc tgttgcagtt ccccgtgctt gccacaatgt cggtcgcgtt tcttatccaa 180
cgctgtttct gcttctggtg gtttgtgcta aatgcatttt caatcccaag tggtacagag 240
aagaaaagga ttgtctttaa aaagtggctt tgaatgtgtc gaaagcaagg ttgcctgctg 300
tgtgtttttg acaattgcct ccccagagga gcctttgaaa acctcacttt tcaagacgct 360
tcaactccta ttagaaagtg acttaaataa aattgctctt ctgaccatcg cggctctgga 420
tgccaggcta gtgattattt gtctaatctg agtctccagg gctagaactt cacaccgtgt 480
cttttcacta ccctcccaga ggaggtgaga ggaggtgaat agacacttgt cagattcttc 540
tgcctggtgt cactgtgggg ggatgcacac acactggagt ataggcttgc taaagagaga 600
ctgcattgct atttcaacta gacacgttta cttttcccgc aaatgattac tgagcaccta 660
tggtgtgccc ggtaccatgt tagggcaaga gatctacctc atccttgcat tgtaaacctg 720
tagcatccgt ggcaatgttt tacaccactg ccctcccagg gttcctgcaa gctgactcct 780
tttatttttcc ttgtgcatgc tgatgtgttc aaggtatttc agtgggctac tgtgagacta 840
tctccccatc aggatctctc aaccttggca ctaggaacat gttgggaaaa gtaggtctct 900
gttaagggag gaagaggggc tttcctgtgc gtgataggat gcttggcagc atccctgtcc 960
agtagcacca catctacctc agttgtgaca accaaaaatg tctgcagaca ttgtcaaatg 1020
tctcctccct attttacatt taccaaagtg ctctttatgt cctttacagt taaggaaact 1080
taggaccagg aagaaacttg ctcaagtcaa acagtgagtt ggcggtagag ctttagctac 1140
aatttaagtc ttgtcttccc aacccagtgt ccatcttatg gatccattca gtggtttgct 1200
cctaaatgct taataaccaa ttatctggga taaacgaaag ccaaacaaac ttgctgggag 1260
cgtgggacaa tttccatggt gtaaatactt ccaccatggc tggtttcaag ctacttccat 1320
ggcgtcactg aatgtgaagt tgggaaggga tctgtacagt tggatctggt gagctggtgc 1380
cagccagctc agaatgcccc caagtccatg tgtgctgctg atcacatatt agtcttgctc 1440

tcctctggac cttgttctgc cacccccag acacatgccc ttatcactgt gatgtgctgt 1500
ggggaaagca gtcacctggt aagagttttt gataacttct ctggataaac ataaagcagt 1560
tagagtggag ttatcccct cttctgttaa atgaaagttt cttttcacag tctttccatt 1620
gaaggaatta gaaaagtcat gggatacctc tggtcttaga gcagaaatga agttccccag 1680
aaggggtcc tggacagaat ggtctcttgg gcagggacta gatgctgtta cttaccatca 1740
gatgtgtcta ctgtaagatg cttgggaggc atcaaagtgg tgacagtggg gggctgttgg 1800
attttaccat tctggaatat aagagaaggg gtgtggctgg tgttttagtc cagatagcag 1860
ctgtgaccac tgggagcctc attttccaca cctgcaaaag gagaaatagt gatccccttc 1920
ctagtgttgg tgtaaagagt agatgaacct ctgcctgagt ctcagatgcc tgctgcccac 1980
ttggttgctt agtggatcgg ctggctgtca acagtgtaag cttatcaagc ctaaatactt 2040
agttggtctt gacttttca cctcgaccat gactcagtgt catgtgctcc tagtcattct 2100
gtctgtggtc caacgttagc ctgggaagca cctgggactg agggaagaac cctcagctag 2160
ttattcagcg atccaggttc tcctcctgcc tttgatatca cctcattata taaccttggg 2220
aaacactttg gtgtgactgg aatgtggata ctcccagggg aagggtagga gcatggtagg 2280
gcatttggac tttatcatga aggtggtagg aaatacttga agggttttaa gcagggatga 2340
cacatcatca aatgtgtgtt ttgaaaactt ttttctgcag aggacagggc cacagcccaa 2400
gcaggatcaa accagttagg agattgatgt aacagtcccg tcagaaagtg atgaggtagc 2460
tgggtgcggt ggctcatgcc tgtaatccca gtcaccgtgg gaggctgaga ctggcagata 2520
gtttgagacc agcccttggc aacatggtga aacccctttct ctacagaaaa aaaaaaaaaa 2580
aaaaaaaaaa aaaaaaa 2597

<210> 43
<211> 3116
<212> DNA
<213> Homo sapiens

<400> 43
ggtgataatg aaagtggtgg tggtgatggt ggtaatactg gtggtggtga cattggtggt 60
ggtggtgatg gtggtgatac tggtgatggt ggtgatggtg gtggcgctgg tgaccctgac 120
atggggtcca gtagcagtga cagtggatgc aggctcctgg tgactgagga gcatctcagg 180
ctgrggaggc acctctgatc cccgccactg ctccttaccc cctacagtct ctcagcaaac 240
ctgctgggcg acagcggact cagatgcctt ctggaatgtc tgccgcagtg cccatctccg 300
gtttgcttga tctgagtcac aacagcattt ctcaggaaag tgccctgtac ctgctggaga 360
cactgccctc ctgcccacgt gtccgggagg cctcagtgaa cctgggctct gagcagagct 420
tccggattca cttctccaga gaggaccagg ctgggaagac actcaggcta agtgagtgca 480
gcttccggcc agagcacgtg tccaggctgg ccaccggctt gagcaagtcc ctgcagctga 540
cggagctcac gctgacccag tgctgcctgg gccagaagca gctggccatc ctcctgagct 600
tggtggggcg acccgcaggg ctgttcagcc tcagggtgca ggagccgtgg gcggacagag 660
ccagggttct ctccctgtta gaagtctgcg cccaggcctc aggcagtgtc actgaaatca 720
gcatctccga gacccagcag cagctctgtg tccagctgga atttcctcgc caggaagaga 780
atccagaagc tgtggcactc aggttggctc actgtgacct tggagcccac cacagccttc 840
ttgycgggca gctgatggag acatgtgcca ggctgcrgca gctcagcttg tctcaggtta 900
acctctgtga ggacgatgat gccagttccc tgctgctgca gagcctcctg ctgtccctct 960
ctgagctgaa gacatttcgg ctgacctcca gctgtgtgag caccgagggc ctcgcccacc 1020
tggcatctgg tctgggccac tgccaccact tggaggagct ggacttgtct aacaatcaat 1080
ttgatgagga gggcaccaag gcgctgatga gggcccttga ggggaaatgg atgctaaaga 1140
ggctggacct cagtcacctt ctgctgaaca gctccacctt ggccttgctt actcacagac 1200
taagccagat gacctgcctg cagagcctca gactgaacag gaacagtatc ggtgatgtcg 1260
gttgctgcca cctttctgag gctctcaggg ctgccaccag cctagaggag ctggacttga 1320
gccacaacca gattggagac gctggtgtcc agcacttagc taccatcctg cctgggctgc 1380
cagagctcag gaagatagac ctctcaggga atagcatcag ctcagccggg ggagtgcagt 1440
tggcagagtc tctcgttctt tgcaggcgcc tggaggagtt gatgcttggc tgcaatgccc 1500
tgggggatcc cacagccctg gggctggctc aggagctgcc ccagcacctg agggtcctac 1560
acctaccatt cagccatctg ggcccaggtg gggccctgag cctggccagg ccctggatgg 1620
atcccccat ttggaagaga tcagcttggc ggaaaacaac ctggctggag gggtcctgcg 1680
tttctgtatg gagctcccgc tgctcagaca gatagacctg gtttcctgta agattgacaa 1740
ccagactgcc aagctcctca cctccagctt cacgagctgc cctgccctgg aagtaatctt 1800
gctgtcctgg aatctcctcg gggatgaggc agctgccgag ctggcccagg tgctgccgca 1860

gatgggccgg ctgaagagag tggacctgga gaagaatcag atcacagctt tgggggcctg 1920
gctcctggct gaaggactgg cccaggggtc tagcatccaa gtcatccgcc tctggaataa 1980
ccccattccc tgcgacatgg cccagcacct gaagagccag gagcccaggc tggactttgc 2040
cttctttgac aaccagcccc aggccccttg gggtacttga tggcccctc aagacctttg 2100
gaatccagcc aagtgatgca cccaaatgat ccacctttcg cccactggga taattgactc 2160
aggaaagaag agcctcggca gggcgctctg cactccaccc aggaggaagg atacgtgtgt 2220
cctgctgcag tcctcaggga gaacttttt gggaaccagg agctgggtct ggacaaagga 2280
gtaccctgca ttacgtggga tatgtgtgat caattgggga catgcgacac acaatgaggg 2340
tgtcatgaca atgcatgaca cgtacggtta tatgtggcag tgtgacccct tgacatgtgg 2400
cgttacatga aagtcagtgt ggcacgtgtt ctgtggcatg ggtgctggca tcccaagtag 2460
caggatacat gattgttggt ctatatatga cacatgacaa atgtccatgt cacaggactc 2520
atggctggcc agatgacctc aggctggccc aagatctaat ttattaattt ttaaagcaaa 2580
tacatattta tagattgtgt gtatggagca gctaagtcag gaaaagtctt ccgcccgagc 2640
tgggagggga gagtgtccat gcactgacca gtccaggggc tcaagggcca gggctctgga 2700
acaagccagg gactcagcca ttaagtcccc tcctgcctca atcctcagcc tacccatcta 2760
taaacttgat gactcctccc ttacttacat actagcttcc aaggacaggt ggaggtaggg 2820
ccagcctggc gggagtggag aagcccagtc tgtcctatgt aagggacaaa gccaggtcta 2880
atggtactgg gtaggggggca ctgccaagac aataagctag gctactgggt ccagctacta 2940
ctttggtggg attcaggtga gtctccatgc acttcacatg ttacccagtg ttcttgttac 3000
ttccaaggag aaccaagaat ggctctgtca cactcgaagc caggcttgat caataaacac 3060
aatggtattc caaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa ctcgag 3116

<210> 44
<211> 3460
<212> DNA
<213> Homo sapiens

<400> 44
acgcgtccga tgaacttgac cggctaaatg ccccactttc tcagatggct tctaacgact 60
ttcaggatta gggccagctg tgggtctact ccttgttgga gcccatctca cctgggatgc 120
ctgcagccag ccctccctcg tgatttgtct caccttgagt aggagacatg cttctccccc 180
aacctttttcc tttctgccat aattaacata tgtccttttc agtaagtcca tgcctctggc 240
aggggatgaa gaagtactca ctggtaatta gctaccatct ttgcagcagc cctggtaact 300
tgaaaaattt gggtctggtg ctgttcatga gtctttgtgt aactgcaaaa gcaggaaagg 360
aagtcaagac tcctgttgcc tcgtgcttag caaagcagtc cttatccttt atactctgtt 420
cttgggtttt gtttttgtct tgttttatac caggcaaatt gcttagtagc aaagggacca 480
aactgaaaag gtgacaatct ctaacttcta aaagcagaca ccaatcggat gctcattaga 540
ggttaatgaa gatgccattc ttggtggcct ctgcacccaa attgcatctg gaaagaacta 600
gggtctcatt cagaatgtcc aaaaggaaat tcttaagagc ttaaattcag atttgtgtct 660
cattaatgca gtgaacaatt caaaaccaca cagattcctt ggcaggaagg ataatggaat 720
aacagtgttg atgagacctt tttagcttca aggtttcgga gtctaaacaa atggatgatt 780
catttggaat gaaactcaca atgcaagtag aaggacctct ccaaatcagg ccagttgggt 840
tatcctggct tggaatctgg tgtgaaacca taggtcttaa cactctggag cagcacattg 900
ctgtggatat gtccaggaga ccttagatat ggcttaaagg ctttcaagat gaggacagaa 960
attgcttaca attgctcagt ttctcaacag aaagactcat aagagtgcca gcatggggta 1020
catggagtga agctgggtgg gaagcatcat ctgcacagtc cctgtcctag tgcaggactt 1080
ttctctgtat gttttcatac catgggattt ttggatatca gtgtattttg gttcttgaaa 1140
tagcctaata gctgctcaca cattgggtag gaatattata ccaatgtcat ccccaaagga 1200
agggtgagct gaatggaaat taagcccagt cattttattt gatctattag ctctgttatc 1260
agtgcatgat cacccagatc accctcctca gcccacacag tgctgaacca tcttccctcc 1320
tgttctccat ggctattaat agtatagcta aatttagagt gcagagccag atataagtat 1380
tttggaatta tctcccagtt tgtggtagaa gctgactgga atacaggttg agtatctctt 1440
atccaaaatg ctagggacca gaaaggtttc agatttttc agattttgga atacttaaca 1500
gttgagcacc ccaaatctga aaggcttctg aacgtcatgt cagcactcaa aaaagtggat 1560
tttggagcac ttcaaatttc ggatttttgg atttgggatg ctcatcctgt gtaggagagg 1620
ctactcgatt ccatttaatg actgtcctag tcataatcat ccaaagataa aagccaggta 1680
gatgttgaaa gctctttcca gggctgaaaa agtgttctta cgttctctgc atgtgactag 1740
catcactgtg gaaattaatg ctctgttctt cactagaatg tagtaagtgg ttaaactgag 1800

ctatccccca cctgatgact attggcatcc atttgcaagg ccaatggcct ggattaaggg 1860
ttaggattat ttgtagctag aaggtaattt tattttctgtg aaactaattg gctcatattt 1920
gaggttaggt gtggccttga ccttaccagt acatttatac ccactaccag ttgactagcc 1980
cagataattg ttaaatggtg cttctttttct gcttctcagt agacttccat gccattacaa 2040
aggaaatttg aattacctag tgtttgtata ttccatgata actatgtata acttctgtta 2100
cacagcttat gtattgttaa catttaagtg taaaccatgc cacagctaac acttaaaaat 2160
gaaaactaat tagttcttgc ttagggaaaa tgccaggtat gaagtatggc atatacttga 2220
cactgtcctg tgtaaccctt tactttgctc aggctttcaa gattgagtct ttttttcccc 2280
aaattaggtt aacatgcatt tgaccccaac ctgtggggtt tgagtaagct ggaaatctgt 2340
gacggtaggc tttctagtgt cacgaggtgg tggtgactga aggaaaagct gggatcacag 2400
gttccttctg atggagagga aggtttattt ctatgccccc cccaccaccc tccacctaga 2460
gctcacccaa gcctgctcca gtcccagggg caggccattc tgcaaaagca ggacctcaca 2520
gaaacaaggg ctgggttgag gtcacccccc tcagagttgg ttcctggcca gatgggtaag 2580
aggcatttgt aattttaaaa atgtgaaact tgggttttggt gtttttcttct aagtgcctaa 2640
ataagcaagc caggctgttg atattttagc cagagaaatc ggcaagccaa gattaacccg 2700
aatctgaagt ttagaatctt gagtttgcat ctgcatcata tcatgctgtt ttgatgagga 2760
aacatttgcc actgaggagt tggagggagg gcaagacgac agtgttaagt cagatcattt 2820
aatggtttcc cctaagccct ggaaaaatat ttgaaagaat ggcagcaaaa aggttaagaa 2880
agcaagccag atttactgca caatatgcag tacccagtac tactttaaat cccaagagaa 2940
cagtgtgatg tctaatatat acaggtctat gaaaatactg tggaataagc ccaggaaggt 3000
tagatgtgtt tgcaaataag ttgcccaaag ggtccccctc taagtaaaac aaatattcag 3060
accacaggct ttaatgtaaa ctgtcaaaaa gtgggatgtg gaggattttt gttaagtgtc 3120
aatcgaagtt aaaaagcaag ggtttttggc caggcgtggt gctcacgcct gtaatcccag 3180
cactttggga ggccgaggcc ggcaaatcac ctaaggtcag gagttcgaga ccagcctggc 3240
caacatggtg aaaccccgtc tctactaaaa atacaaaaaa attagcccgg tgtggtggca 3300
agtgcctgta gtcccagcta cttgggaggc tgaggcagga gaactgcttg aacccgggag 3360
gtagaggttg cagtgagcca cgatcatgcc actgcactcc agcctgggca acagagcaag 3420
actccatctc aaaaaaaaaa aaaaaaaggg cggccgctct 3460

<210> 45
<211> 2622
<212> DNA
<213> Homo sapiens

<400> 45
aggttccctc ctttggatat ttggcagttg tactttatgc agttcagcca agaactaaac 60
acaggccttc aggtgtggtc agagtacagt gggccagagg tccttttctt tcttcatgtg 120
gtcatacacc tctgttaatt caacttaagt ttatattact tttgggggtg ggagtgggga 180
agaggatcac attgttgact tgctggaagc attatgtcaa ctaaaatcct tcagttctta 240
ttttcatcat gctgttgggt tccccctatg ttgtttcttt ttaaaaacac caaatgcaga 300
acttcccttt tatactgctt ctatttcatc ttgttgactt gtagcctatc agagtatgat 360
tctttattgt catctaaggt attctgatat aatcactgca tgtctaaatt ctagttattg 420
actaaatgct acttgagacc attctccttgg ttgtcacatt attttacagt tgaagaaact 480
gaaccttaga gaggttaagt accttgttaa aggccacctg gctggaacat aacatcctgg 540
tcattttaac tactaatgct gtcatgaaag ggagttagcc agggcaggtg tgaatagagc 600
attctagcat aagcagccaa caattagagc aactgtgtat ttttagtgtg tggatagcaa 660
atctttgctg tcttggaagt tactatctta gaagcatggt attaagctct ctattcaatg 720
tggtgttcac atcagtagca ttggtttcat ttgggagctt tttagaaatg cagagctcag 780
gccccactcc aggcctaagg attcaatctg cattttaaga agtgacccat atacacatta 840
aaggtttaag aagcattgct gtagtatcct attttccaca ctttagtcat ttgcatatca 900
cttgtgcaac tttggcttta tctgcatact tcctgaaggg ggcctgcccc tccacacctg 960
tgggtatttc tcgtcaggtg gagatgaaag aatgagaaaa gaaataagac acaaagtata 1020
gagaaagaac agtgggccca ggggaccggc acactcagca tgcgaggacc tgcaccagtg 1080
ccggtctctg agttccttca gtatttattg atcattattt ttactgtctt ggcgaggcga 1140
gtgtagcagg gcaacaggtg gcgagaaggt cagcagggaa acgtgagcaa aggaatctgt 1200
atcatgaata agttcaagga aaggtactgt gcctggatgt gcacataggc tagatttatg 1260
tttcacttta cacaaatatc taactagcag agagcaacaa agcagtattg ctgccagcat 1320
atctcgcctc cagccacagg gcggtttttct cctatctcag aatagaacga atgggaatgg 1380

tcgactttac actaagacat tccattccca gggacgagca ggagacagaa gccttcatct 1440
tatctcaact gcaaagaggc ctccctcttt cactactcct cctcagcaca gacccttac 1500
atgtgtcggg ctgggggatg taaggtcttt ccttttcccac gaggccatat ctcaggctgt 1560
ctcagttggg ggaaacctgg acaataccca ggcttttctg ggcaggggtc cctgcggcct 1620
tccgcagtgc attgtgtctc tggttaatcg agaatggaga atggcgatgg cttttaccaa 1680
gcatactgcc tgcaaacata ttgttaccaa ggcacatcct gcacagccct aaatccatta 1740
aaccttgatt caatatagca catgtttctg ggggcacaga gttggggcta aatttacaga 1800
ttaacagcat ctcaaagcag aacaattttt cttagtacag atcaaaatgg agtttcttat 1860
gtcttccttt tctacgtaga cacaggaaca atctgatctc ttttccccac acttcctata 1920
tgttaatgta ttttaattgt ctgttagctt ttatgtcttt ccaacttgaa ataatttcac 1980
ttacaaaata gctggaaaaa tagtaaagat aattcctgta ttttcttcac ccacgtattc 2040
ccaaatgtgt aacacctaca atcagcaaaa atcagcacat taatattatt acctaatcta 2100
cagacctcat tcacattttg ccagttgttc tgctggtgtg ctgtatgtag tgcaggatcc 2160
agtctaggcc cgtatgttgc attttgctgt catgtcttct tagtctcctt tcatctcagt 2220
ggtctttttct tttccatgac tatgacagaa atgatttgta tccttcatat atctgcagtc 2280
acatgaagtc tatttgtccc actactggtg acgtaaattt tggtaacttg gttgagggtg 2340
gtaccgtcta ggtttctcca tattaagttg ctatttttcc ttgtgtattt aataagtatc 2400
ttatagggaa atcctttgag actatgtaaa tatcatatta catgtatttt gcctatttta 2460
gcatcttttg aagataattg cctgaaacat tttttactgt gatgattttc taattctatc 2520
attctgcatt tattagtttg gaattcgatt gtaaggaagt atattccctt gtttcctatt 2580
attttattaa agaaatttac atccaaaaaa aaaaaaaaaa aa 2622

<210> 46
<211> 1984
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (106)
<223> n equals a,t,g, or c

<400> 46
agttgttgct atgaatgatt ttaagccttt ttttttaagc ttggcaaaca tcccagctaa 60
tcaaaatagt catattcctg agaagtagga aactaaaact tctttncata taattgttag 120
aaggtttgtt tcccaaacta ccatagttac aaaggtgaat agccaaattt taggaacaga 180
atcaaaagaa taaaaatctg tgaagagatc ctactactct tccttctatg ttttggtttt 240
ggttttctatt gtccctatca tttcagcaag tggaacagca gcaagttttt cagtgcatat 300
gctgcacaag aacaaaatat aaatctgtat ggcaccaaaa atcaaagtga aaaccaaacc 360
aaaaacccaa acaccctatg taactatcgg aggcatatac gtggtataaa tgactgtagc 420
tgtgatacac acatggctac ttgtcacatc actttccata attatttact gcaaaatgat 480
tgagaggctt ttggtgcagg cagccgttaa cctcctgctt cctttgttac ctctggatta 540
ctttgcagta aattgcaggt cttttaagag atttaagctt cagttttctc aaaccaaacc 600
aattatcctg tcttatctga agatgcaggg ttgtgggcaa aagaggctgg ttataataat 660
gccctcatat tgagtggtct gtaaacggct gcacacttca ggcactgtag ttgctgaaga 720
tgctttgtta aatgtgacct tgactggctt tacaggggtg tagaatgtaa tctacacaag 780
gtgactttgc atctatcttg ctcttgaggt ggatgaaatt gagaagctgg agtgtgtaag 840
ccatgcacat aagtattctt cactgtaaat tttgttttca tttttaaccc aattatggta 900
ctttatccaa tgcacaactg atctctcagt agatattcat ttgaaaatag tgtggccttg 960
atcagtgaga aagggaagga gaaaagtgac ttttttgctt atgtagaaat gactcatttg 1020
ctgagagttt gtcttttctgc agcactcttg gtataatgtt agtgatcggt ctccttttttg 1080
attggggaaa gttaatgttt ttgaccctgg agttaattca gttgagttat cttatatttt 1140
taggaagtat cagaattgct ctgatgaata acaaagttga ctgttttgat gtccaatctc 1200
aggttttaga atatagtggt gtaaagtccc actatttttta attcttaaaa caactttaat 1260
ttcgtacacc ctaaaagtca catgcataag gcctgttcag agagcagagc ctccatcttt 1320
ttgctccttt tctacttttgt acttcacttg raaaaatatc aagtgacttt acatkgtata 1380
tttccattgt aaccctgaca tttctcaaag ataaagcact ttttgatcat gaaatacatg 1440
aaatctttgt gtgatgtgga tcatagtttc tcaggctccc ttagataatt gcttatgaat 1500

attgttctaa ctctgtgtaa gaagagtaga aatctttgct aatgttagaa ggtttgtatt 1560
attgatccag aatgcatttt gctagtttcc aatggatggg agagtaaata atgctgcatt 1620
cacaatttaa taagttactt tcccttgagc cttaaggtaa cttcttcttt tctgtcaact 1680
acagcactga agttatagta agtgaatgag attatcagtt ttcagggttg gttttagagt 1740
actgtaaatc aattagctgt cttcctaaag agttacaact cccattcagt atactggata 1800
atgggtgtgt gggtggggct ggggagggcg ggagatagtt tgtagaaaag aaaaaagaaa 1860
aaaaaaaaaa acacatttac cttaagaaaa tacagacaaa aaaaaaaaaa aagggcggcc 1920
gctctagagg atccaagctt acgtacgcgt gcatgcgacg tcatagctct tctatagggt 1980
cacc 1984

<210> 47
<211> 1987
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (442)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (444)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (473)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (493)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1011)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1025)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1111)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1119)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1169)

<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1234)
<223> n equals a,t,g, or c

<400> 47
ggcacgagac cggcgctagt cttgcgtcgc acagcaggat tgcgctgctt tctgatgacc 60
ttcgacatgg atggcgatgg taatgaacgc ttttcccgta acgccccacc cgcaaccgac 120
ccaggccgga atgaccctga tcgaggtcct ggtatctgtg ctgatcctcg ctgtcggcct 180
gctaagggcg gcagtcattc agctcaatgc attgaaatac accgacagtt ccaggatgac 240
cagtcaggcc agtttcattg cctacgacat gctcgaccgg atccgcgcca attcgggtgc 300
tgattactcc tggggccagg gtgaacgcgc gccctccacc acctcggtcg cgagtgtgcg 360
tgatctggac ctgcacgact ttgaagcgaa tatcgtcggg ttcgccgggg aaagcgccaa 420
ggggtccgtt gcggtcaatc ancnagaagt gaccatcagc atcagttggg acnactcccg 480
tggagcgaat gcncaaggca cccgggaaac attcaccctg accagccggg ttgcagtcga 540
tccgagggtg ttgccatgag aggtccagtg tgcggtttca gcctggtgga gatgctgctg 600
gcattggccc tcggcctgat gttgatcctg ggggtgaccc aaattgcact cagctcccga 660
accacttatg ccagccagag tgcggcttcg ctgttgcagg atgatgcacg gttcgccctt 720
ggcaagctga ttcaggaaat acgccaggcg ggcatgtttg gctgcttgtc cgctgcatca 780
atcagcaacg ctcccgcagg ttttgatcgt cccattggat ggagtaccac cggcagttcc 840
cggtccctga cgctggtgac cgccgacgtc ggggagggtg gcagcaagcc ggactggacg 900
gtgctttccg attgcaccgg ctctgcccac gcctatgttg gaagcccgcc ggcagcgaac 960
gcccgggcaa atccacttcc cacttgcgca aagctgacct aacacctttg nagggcgggc 1020
aagcnggaag ttaagtaacg ctggcggccc ccgagcaaag cggtggttgg tggataacgt 1080
ggggcattcg atatcagttt tcggcgtggc ngacaagcnt ggctcaacgg ttgtcagccg 1140
atatgacccc acccccggcg atgagtcgnt catccgcagc gtgcggattc tgctgacact 1200
tcaggatcca aatgggttgg tgaaagacca ggcntacagc gtggtcgcgg cactacgtaa 1260
tcgcctggag tagcgtgccc atgggttatt acctctcccg ttcgaggcag gcaggcatgg 1320
ttttgctgat cagcctggta ttcctgctgc tgttggcact cctcggagtg tcttcgatgc 1380
agggagcaat ctcgcaagaa aaaattaccg gcagccttcg gcagcgcaac cagtcgtttc 1440
agcaggccga aagcggcctc aggcttggcg agtctttggt gcaggcgtca ggtttcgccc 1500
tgcgcccttg ccactcgacg gctgcgtgcg cgccacctgc cgaatcggtt tcggtagtgg 1560
ggccggggac gaaccccgta tcgactgtga cctggatagg gatgaaagat ggcgtctacg 1620
gtattcaaaa cctggggccg ggaacgggtt tggtcaactc ccggcagagg cccaggccac 1680
ggtctatcgc gtgacatcag tgggcgtcag tgggcactcg cgttcggtcc tggagtctgt 1740
gtatgcccgt gtgggcagcg ggcccggcga gcgtttccga cgaatcatgt ggcgacaact 1800
tcaataggtg agcagcacga tgggcaagga ttgcacaggc ttcaccctga tcgaattact 1860
gatcgccgtg gcctcgtgcc gaattcggca cgagattaat tcccctaaaa atctttgaaa 1920
tagggcccgt atttacccta tagcacccca tctaccccct ctagagccaa aaaaaaaaaa 1980
aaaaaaa 1987

<210> 48
<211> 2113
<212> DNA
<213> Homo sapiens

<400> 48
ggggaatatg gatggctttc ttctttgccc tctttgttat tttcttttgtt attgttgttc 60
agatggagtc tcactccggc ctgggcaaga agagcaaaat tctgtctggg gggcaggggg 120
aagaggtata ttttttggat taaaatggaa tgctttcctc aaactgttaa aattaggtag 180
tgttacaagt ttaaagaata ggtttagcca gtgtgattat tgcagtgtaa taaaaaggat 240
cccaggtggc acacatgcta gtgtggtgcc cagatgctca actgaagtga aggataacat 300
gcgtttcaac attttctata tactaggcag ttttttcttaa gtcttggttt attgtgatat 360
aatacagtaa aatttactct ttatacgtat gattccatta atattaacaa atttaaacag 420
tcttacagct aaatacaatc aagatacaga acatttccat cactacagga agttgttttt 480
tgctaattta actaaacttc ttaccatgct caaccccccа cccccaccct gagaaccact 540

gctttgtttt tctgatcata tagtttggcc ttttcaaawa tgtcatacag ttggaatcat 600
atagtatgca tgaatcatgt agctgaagtt ttcatttcac ttaggtaaac acctaggaat 660
aggagtgctg ggttatactc taagtgttaa acttcataag aagctgctaa actgttttcc 720
aaagcatctg taccattttc ctttcccacc agcaataaag cattcattag tctacgtact 780
caccagtgct agtgtggtca gaatgtatag ttttaattat acacattata atagatgtag 840
agtggtatct catcgtgatt ttgccttttc ctaatgaata tctttcctta catatttgtc 900
attagtgtgt cttctttagt aaatggtcct attgttttgc ccatttttaa aagttgagtt 960
ttcatattgk tcaatttcga gagttcttca tatattctgg acacaagtcc tttgtcagac 1020
atgtgatttg caaatatttt cccccagagt tttcctgtc ttgtcagtcc cttaatagtg 1080
tttttaggaa ggagaacagc tgcttttaat tttgataaag cttgcaattg tttttctttt 1140
atggatcatg cttttggtgt agtatctgag aactctttct taaaccagtc acacatgtct 1200
tctgttttct ttgaagcttt acaggttgag gtacattttg gtccatgatc acttttgagc 1260
tacttttat atataggtag tataagatat ggtttgaggt ttttgtttgg ggtttttttt 1320
cttcctgcat atgaatgttc agttgttcca gcaccatttg ttgaaaaaac actatccttt 1380
ctctagtaat ttgctttttt acttttgtca gttgactatt tgtgggtctg tttttaaact 1440
ccattctata ttatgtctac attatgaact ttatagttag tcttgaaatt mggtaatgtg 1500
ggtcttctca cttgtgcttt tcaaaattgt tttggctctt ctaattcttt cactttttcc 1560
atataaattt tagaaamagc ttattgattt ctaccacttt cccccaaaaa gccacttggg 1620
aatttgacta agtttacatc gaatctaata aatgatttg gagagaagtg gtatcttagc 1680
aatacagtct ttttctgataa cacttcctgt tttagttctt ttttctcattt aataattttc 1740
caacattaaa accttggaca aatttagatg tgtatctgaa taattccagt tttgttgcca 1800
tttaaaatgg tacataatcc ttattttata gatgagaaaa ttaagtaact tgcccaagtc 1860
acacagttac taaatgacaa agctagattg aaatctatga gcttataaac taatgtcctg 1920
ttttgagcta cagtactagt tttattaaat tgttgtggtt aaactgaggt gggaggatag 1980
tttgagcacg gaagattgag gctgcagtga tctttgatcc tgccattgta ctccagcctg 2040
gcaacagagt gagaccctgt ctccggaaaa aaaaaaaaaa caccatggaa gcaagcaaaa 2100
aaaaaaaaaa aag 2113

<210> 49
<211> 3465
<212> DNA
<213> Homo sapiens

<400> 49
agaaaatgaa agcaccaaag agccttcttt gctacaatat ctttgtgtgc agtctcctgc 60
aggattaaat ggtttcaatg tacttttatc tggcagtcaa accccccta ctgtgggccc 120
gtcctcaggt cagctgccgt ctttcagtgt cccttgcatg gtcttaccat ctccacctct 180
gggccctttt cctgttctct attctcctgc aatgccgggc ccggtttctt ctactcttgg 240
tgctctccca aacacaggac ctgtgaattt cagcttgcct ggccttggat caatagccca 300
gcttctcgtc ggccccacag ctgtggttaa tccaaagtcg tccacactcc cttctgcaga 360
ccctcagctt cagagtcagc cctcactaaa cctaagtcca gtgatgtcaa ggtcacacag 420
tgtcgtccaa caacctgagt cccccgttta cgtgggacat ccagtctcag tagtaaaatt 480
acatcagtca ccagttccag tgacccccaa gagcatccaa cgcacacatc gtgagacgtt 540
tttcaagaca cccggcagcc ttggagaccc tgtcctgaag agaagagaaa ggaacaatca 600
cgaaacacca gctcggccca gaggagacta gaaatcccca gcggcggcgc tgactaacct 660
gccgctttgc caggtggggg tgggatcaaa cgccctgaga gtcccggatg tccgaggcgg 720
gatgcaaacc atcccgtcct gagcacgggt ccttcctctc tctttcatcc acacttctgt 780
taacttccca ccaccatcaa tcatctgatt tcctgaaagt aattaattgt gcatttaata 840
ccagttagag ttccgactct gcatggtgtc acagtgaaag cgccgactga cttatggttt 900
tgattcaaga atcgtcttat tgctggaagt agatctgaat aggataccgg agccttgttt 960
ttctaaaggg gggcgctgtc tagcacttaa ctagggtaag cattcttaac atgtatttcc 1020
acttgccctg agtaaatctg tggtgagaga agcttccttt ctgcagttta aaaaagctac 1080
tgcttcctta ggcttcatca ggaagccatc ttcagttgtg aatcctatgg tgttatttat 1140
tttgttcctg aaatgggatt tagtgcaaaa agtttacaac tacagtcttt aacacatttt 1200
tttcagggta tgacgacttg aatgtttata cttttattct ataatttgcc ctgcacttat 1260
tttacaacct agtaataatg tggataaatg tatctacatg acacatgtca agaccaaaat 1320
aactgtgaat gacacacctt gctgtaaatg aactgtgcta accctgactg tgggcttgag 1380
aacaaagatg aactctagaa ctctagcagc ctaactgctg cttctcaaat aactgtgtga 1440

acagtgagat attactgttt gtttctaaaa atcctactgt gcccagtttc cttcactaca 1500
tgccctgcat tttttattta aatatttagc tgtagcgcca tcagatatgg atgccttcta 1560
acaattgctg tttgtaaaat aaatcaggat ggtagaaagt gattttatgg aaaattggaa 1620
cctggatgag acctttttcgt tgaattctga agagtaatga tgcgaaaatt gatacagggc 1680
aagagatgat tcttttgttt ttcttctact tcatgtccag aagagtaaga gggaaaatgg 1740
acatatgttt catatccaag ggtattcaaa ctgtagttag ttggtacctc tgaaaaatga 1800
gaatggtgag cgcacgggtt ggttgttcta gcatgaatac aattctggaa actgttatgc 1860
aatttccctt ttttaaccca cattacttta ggggtgcatt aagtcgccaa actatactag 1920
ttctttgtat tcctagactt gctgatattt acctctctct tgtctcttca gagtaaatgg 1980
ttcccttctt tccttcctac tttccttcat tctctcttcc ttcccttctt cctactttct 2040
ttcttccttc ctcttcctct cttaaaacta tcttagatgt agaatcctgg tgtagggttt 2100
tatttttattt ttatttttttg acccaataaa atgttatatg aaagaatgaa aatattaatt 2160
taagagactc tgggagtctg aataaagtag ctttatatta actacaggat aatattagcc 2220
ttattacccc cacaagattt tttaaaactt gaggtaggta gctacattaa ataaatttgc 2280
tacttatata aaaatttttа tcaacactaa acttttaaag tttacaagtt ttttttttct 2340
tttttacagt cttctataga gttaggttaa aaatgtggtt ctaaccatca acaattgcat 2400
ggttaaatga ccctgaacta aaactgatgg gttccctatc aaaacaaata aaaatatacc 2460
tttttcaggt ttcaatctgt gcagggtata tgcatgttaa ttctaccatg cttaagaact 2520
tccacaaaat atttcatgga gaggtctgca tttagacgga aacagaaatt gcttttcccc 2580
tcactgttcc tgaatgctct atacttgttt taacattttt gctatctttt tttattattc 2640
tgatcatgat atgaccattt aacctcagaa ttcataattc ctgaggggtg ttaagaagca 2700
gtcccattgg tgaggatatt atgacttggt gaccattctt aggagtagaa aaccaaggac 2760
aattgcttct gtattcagta tccacttctt aatgtggctt tatatgtaaa aataataatg 2820
cagtggttgt ttctgtcagg aaaataaatc ttacagaaca actggtggaa ttgaagctgc 2880
tgcgctagac ttggatattt tgggtagtga agaagcaatg gcaatcttga gtctattatt 2940
gtataattta gtaaaagaaa aaaataatcg ttggtggtcc tactaagaga atgcagcttt 3000
tttgagttgt cacagaggct gtgtgtgccc tacactgacc agggtttgta aaacccttтc 3060
attctggtac aagagtcggg ggtataactt ttatacttga atctacctac caagtttaca 3120
tttctcaatt ccttttttgta aggtgctatt tctgtattta aataactttc ttttaacgta 3180
aagctgcttt ctgcttatct tattgcactg ctagttgtat gtaggtatta attttattgc 3240
tgcttactgc ttttgttttc ttattattta gctctgctct ttttcctaat ggctatatta 3300
tctatagcta tttacttgta actgtactac atgtaaactg attttttgtt ctgatttttt 3360
ttctaatatt tttaggaaaa tattaagctt tataaaatag caataaaaaa taattcattt 3420
aaaaaaaaaa aaaaaaaact cgtaggggggg gcccgtaccc aattc 3465

<210> 50
<211> 1237
<212> DNA
<213> Homo sapiens

<400> 50
atgggccagg aatggggtcc ccgggcatgg tgctgggcct cctggtgcag atctgggccc 60
tgcaagaagc ctcaagcctg agcgtgcagc aggggcccaa cttgctgcag gtgaggcagg 120
gcagtcaggc gaccctggtc tgccaggtgg accaggccac agcctgggaa cggctccgtg 180
ttaagtggac aaaggatggg gccatcctgt gtcaaccgta catcaccaac ggcagcctca 240
gcctgggggt ctgcgggccc cagggacggc tctcctggca ggcacccagc catctcaccc 300
tgcagctgga ccctgtgagc ctcaaccaca gcggggcgta cgtgtgctgg gcggccgtag 360
agattcctga gttggaggag gctgagggca acataacaag gctctttgtg gacccagatg 420
accccacaca gaacagaaac cggatcgcaa gcttcccagg attcctcttc gtgctgctgg 480
gggtgggaag catgggtgtg gctgcgatcg tgtggggtgc ctggttctgg ggccgccgca 540
gctgccagca aagggactca ggtaacagcc caggaaatgc attctacagc aacgtcctat 600
accggccccg gggggcccca aagaagagtg aggactgctc tggagagggg aaggaccaga 660
ggggccagag catttattca acctccttcc cgcaaccggc cccccgccag ccgcacctgg 720
cgtcaagacc ctgccccagc ccgagaccct gccccagccc caggcccggc caccccgtct 780
ctatggtcag ggtctctcct agaccaagcc ccacccagca gccgaggcca aaagggttcc 840
ccaaagtggg agaggagtga gagatcccag gagacctcaa caggacccca cccataggta 900
cacacaaaaa aggggggatc gaggccagac acggtggctc acgcctgtaa tcccagcagt 960
ttgggaagcc gaggcgggtg gaacacttga ggtcaggggt ttgagaccag cctggcttga 1020

acctgggagg cggaggttgc agtgagccga gattgcgcca ctgcactcca gcctgggcga 1080
cagagtgaga ctccgtctca aaaaaaacaa aaagcaggag gattgggagc ctgtcagccc 1140
catcctgaga ccccgtcctc atttctgtaa tgatggatct cgctcccact ttcccccaag 1200
aacctaataa aggcttgtga agaaaaaaaa aaaaaaa 1237

<210> 51
<211> 1397
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (1383)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1396)
<223> n equals a,t,g, or c

<400> 51
ggtccctagg agttgagcag gaacaggcat ctgtggttta cggcgacctg gctctccgcr 60
ggccacgtgg gtggtgaggg cacacgagtg ggaagcggca ccgacgtgtt tctccccgac 120
cgtggctttg ccaaagactt ttaatagcat tttttaagtg caaaacgtct aggtaaaaat 180
ctttatcatc agtgaccaaa ttagaatgta tttaatatag taggtggttt aagaactgtt 240
ttaacgtaag acaaactgat agcaacattc tgttgttta aaggaagtgg gtccgtgaca 300
ttctgcagct agtccactac tccaaggtaa ctatcgactt ggtttcagtg aatctatttt 360
gtttttaact acagtgattt attagctcag tatctagaaa ttacgtatat tttgtgctac 420
tgtcatcgat gtgtaaactc tgtttttatt tgtatttatg cacttggttc ccatttggag 480
cctctggtct tttctgggat aagtggtgtc tgccgagaca tctcccggtt gtcagtggtc 540
aggagcagct gagctctagt ctgccagctg ctctgctctt tctgggaagg aggtggcgcc 600
cgcccctcag ggtgtctcca gggctcagct tccggggtgg tagagctggg gagccccagg 660
ggtgggggga cagctgggag atggaggtgg cacctgctcc cctagatcag tactggctct 720
gaggacaggt gagcagtggg aagaccaaag aatggctggc agcgctgcca rggttggaaa 780
tgggggcaag atcctggggc tgtgtgccct ggggcctccc tcacctgtct tggtggccat 840
ggcctcaggg atggctccta ggtggctgag gcacagcagt ggctggaagg tgccccgtgg 900
aggctgaggt ggaggcgcgc ccagcagctc ccccctgtgg ccatggcggg cacgggscgt 960
aggagctggc tggcggccgg ctctgcatgt tcttgttgcc tgtcgtctgt aactctagtg 1020
ttcgacattc gccgtgatac agtggtgtca cgacgtgtgt aactgtggtc agcagacctt 1080
gttccgcgtg gacgcctcaa gtggattaat ttctggaagc ctcaatctgt atgtttgagt 1140
atttacatga gaatgttatt tgaatggaat tttcttaacc cagaaggtag tatttataat 1200
catttacttg tagcgaactg tttaaagtta acacttgttt aaatttttt acactatagc 1260
atttatgcaa tggtttacag aattcatgga gttatttta tcagtatggg aattaattaa 1320
aaccttgaat cttaaaaaaa aaaaaaaaag ggcggccgct ctagaggatc caagcttacg 1380
tangcgtgca tgcgana 1397

<210> 52
<211> 2271
<212> DNA
<213> Homo sapiens

<400> 52
cggcacgagc ggcacgagta tcggagggct ttggaccatg aggaggaggc cctgtcatcg 60
ggcagtgtgc aagaggcaga agccatgtta gatgagcctc aggaacaagc ggagggctcc 120
ctgactgtgt acgtgatatc tgaacactcc tcacttcttc cccaggacat gatgagctac 180
attgggccca agaggacagc agtggtgcgg gggataatgc accgggaggc ctttaacatc 240
attggccgcc gcatagtcca ggtggcccag gccatgtctt tgactgagga tgtgcttgct 300

gctgctctgg ctgaccacct tccagaggac aagtggagcg ctgagaagag gcggcctctc 360
aagtccagct tgggctatga gatcaccttc agtttactca acccagaccc caagtcccat 420
gatgtctact gggacattga gggggctgtc cggcgctatg tgcaaccttt cctgaatgcc 480
ctcggtgccg ctggcaactt ctctgtggac tctcagattc tttactatgc aatgttgggg 540
gtgaatcccc gctttgactc agcttcctcc agctactatt tggacatgca cagcctcccc 600
catgtcatca acccagtgga gtcccggctg ggatccagtg ctgcctcctt gtaccctgtg 660
ctcaactttc tactctacgt gcctgagctt gcacactcac cgctgtacat tcaggacaag 720
gatggcgctc cagtggccac caatgccttc catagtcccc gctggggtgg cattatggta 780
tataatgttg actccaaaac ctataatgcc tcagtgctgc cagtgagagt cgaggtggac 840
atggtgcgag tgatggaggt gttcctggca cagttgcggt tgctctttgg gattgctcag 900
ccccagctgc ctccaaaatg cctgctttca gggcctacga gtgaagggct aatgacctgg 960
gagctagacc ggctgctctg ggctcggtca gtggagaacc tggccacagc caccaccacc 1020
cttacctccc tggcgcagct tctgggcaag atcagcaaca ttgtcattaa ggacgacgtg 1080
gcatctgagg tgtacaaggc tgtagctgcc gtccagaagt cggcagaaga gttggcgtct 1140
gggcacctgg catctgcctt tgtcgccagc caggaagctg tgacatcctc tgagcttgcc 1200
ttctttgacc cgtcactcct ccacctcctt tatttccctg atgaccagaa gtttgccatc 1260
tacatcccac tcttcctgcc tatggctgtg cccatcctcc tgtccctggt caagatcttc 1320
ctggagaccc gcaagtcctg gagaaagcct gagaagacag actgagcagg gcagcacctc 1380
cataggaagc cttcctttct ggccaaggtg ggcggtgtta gattgtgagg cacgtacatg 1440
gggcctgccg gaatgactta aatatttgtc tccagtctcc actgttggct ctccagcaac 1500
caaagtacaa cactccaaga tgggttcatc ttttcttcct tcccattca cctggctcaa 1560
tcctcctcca ccaccagggg cctcaaaagg cacatcatcc gggtctcctt atcttgtttg 1620
ataaggctgc tgcctgtctc cctctgtggc aaggactgtt tgttcttttg ccccatttct 1680
caacatagca cacttgtgca ctgagaggag ggagcattat gggaaagtcc ctgccttcca 1740
cacctctctc tagtccctgt gggacagccc tagcccctgc tgtcatgaag gggccaggca 1800
ttggtcacct gtgggacctt ctccctcact ccctctccctc ctagttggct ttgtctgtca 1860
ggtgcagtct ggcgggagtc caggaggcag cagctcagga catggtgctg tgtgtgtgtg 1920
tgtgtgtgtg tgtgtgtgtg tgtgtgtgtc agaggttcca gaaagttcca gatttggaat 1980
caaacagtcc tgaattcaaa tccttgtttt tgcacttatt gtctggagag ctttggataa 2040
ggtattgaat ctctctgagc ctcagttttt catttgttca aatggcactg atgatgtctc 2100
ccttacaaga tggttgtgag gagtaaatgt gatcagcatg taaagtgtct ggcgtgtagt 2160
aggctcttaa taaacactgg ctgaatatga attggaatga tacaaaaaaa aaaaaaaaaa 2220
actcgagggg gggcccggta cccaattcgc cctatagtga gtcgtattac a 2271

<210> 53
<211> 2769
<212> DNA
<213> Homo sapiens

<400> 53
ctgccaccgc cgctcccccc ctcccgctgc cctcgggccg ggctgggtcg agctgcgatg 60
ccctcggact tcatctcatt gctcagcgcg gacctagacc tggaatcgcc caagtccctc 120
tactcgcgag attctctgaa gttacaccca tcacagaatt ttcatagagc tggactattg 180
gaaggtcagc aaagtaccat tttaaagcat attgtgttag tatgcaaagg ctttctctga 240
aatggagttt aaatgggaaa gtatgaaact ttgcaaactc acacaatgta gttttctcct 300
aaagagtctg atccttcttt tagagcagct gaatgtttca atgggttttg ttgctgcgtt 360
tgatgtgctt gttggctgtt ctatctgctt tgagaaacat tgaaaaaaaa atcattttaa 420
attatgtgtt gagtgttcta ctttagaatt ccagaccttc attttagctt tttatacaca 480
aaatagaatg tgaaaaggcc caaacattaa catgaatata aaagagtgac accaaacaca 540
taattagttt gaaaattcag aatttagaac atttatatgc tgagcatttc aaaatatgtt 600
aattatttat tgcaaaagca ttgatgccat tgttattgca ttatacttaa gggtaaggaa 660
agccaagtaa tagcgatgat gattgagcta tgcttagaag aaaggggttt agaaagttct 720
ggaaatgtta atagagtctg tagattagtt taaacagctt acacttactt tagaaaactt 780
ttggctttgt gtgtgtgtgt gttttaacat tttaagacat aaaatagtct tgtgttttttg 840
tagattttga agtgatttca catatatcat ctttaaatct ttataatttt ggaattggac 900
agcaaaggta ctaatttccc cattgtagag aagagaaact aaggctgaaa ttaagaaacc 960
aaaaaaaaaa aaaagtccca cagtagaaga aataatactt tctgcgtttc agttagtgct 1020
ctttatgcaa agcggccacc gtgaaataca catgtaacca gtaacaaaca ttttatggtc 1080

tactttaaaa aggccctaaa tatttaagtt tgacttgaga agatttttgc ctcccttgga 1140
ggtagtccgg gatagtgggg ggcaagtggg ttttgtagtt gagcttaaat ttggatacca 1200
acttagctcc ttattagttc tgtgacttcg ggcaagtgat tttacctctc taaactttaa 1260
tattcttcct gttaaaatgt agctgtctct taaatttagt gagctaatgt gtattaaatt 1320
gcctagcata gcgtctagct taataaatgt tagtttttc ctttagtatc agctaaattt 1380
ttttaacagt ataatttaga gcatataaaa tgttctcaaa taaataattg gttaaatttg 1440
ttttgtacgt gtaagaagcc catagatata cattagtatg aaaatcaaat atttttaaaa 1500
ctacaatttg aagtgagaaa ttttcagcag tgtttcttag tgaagcagat ttctggtttt 1560
tattcatatt caatttgtga ccatgttgta gagacatatt tgtctgtaca aacccatctc 1620
atttcctgga caacaaacca tagagtgtca taatcataga gatgatcagg gaggagaaag 1680
acatgaagaa aaaaatgagt gttaattatt taagcaaata tttttagtga gctgatggaa 1740
atacagacaa ccatttagca tgtttattta catgtttatg cctaaatact ttcgttaatt 1800
tttcatttta gttaagggga ttctcattta aagtaaggct acccttttag aaattatata 1860
taaaatataa catgtataag tatcaattct gtcatgccct ttaaaatgtt ttgagacagg 1920
gtgtcttaaa aaagttgttt gcttctgtaa tgaagtgtct aatctgtgcc acctcattgc 1980
tatttctttt ttattattga cattttaaag aatacataaa agtagagaga ataaaataag 2040
ccccatatac ccatcaccac agtttaacca gtatctaatc ttgcttcttt tatcccttct 2100
tctctctcaa gctggattat tttaaaacaa atatcaaaca tcagatcact tcatacataa 2160
gtatttctgt attacagtga ctttcttata ttaactattg atataattta attgttaata 2220
taattattgt attaattttt aattactctg tatagtttat aaactatttc ttggaatatt 2280
ctagtttatt tcagcaaagt ctcttgtgac tctcctgccc tcttttcaag acagagtgct 2340
gcaggaggct accgcttcta gtatatagta tatcctataa cctatgttga aattgtaggc 2400
catgctgcta gattggagtt catattgttg ctctgacatt tacttgtatg gccttagcct 2460
aataatttaa tctttttgc ttcaattttc tcatctttaa acgggagcaa taatagtgcc 2520
tcatcctagg tttttgtgaa gattatttga ggcaaattcg tgtaaagcat ttaatttagc 2580
acatgctaag tgctcagtaa atgttagcta aagttaaaaa atttttaaaa cctaaatgct 2640
agctgtagag tgtttactgt gtgccaagaa ctttacaaat aagaactcct gaggtgggca 2700
tatcacttgc ggtcaggagt ttgagaccag cctggcttac atggtgaaac cccatctcta 2760
ctaaaaaaa 2769

<210> 54
<211> 1389
<212> DNA
<213> Homo sapiens

<400> 54
ctgcaggatt cggcacgagg atctgttgac cacagatgta agaatttatt tctggagcct 60
caattctaat ccattgctct acatgtgcac tggtttcctg ggctgccac agcagaatac 120
cacagacttg gggcttaaa caacaaagtg attcctcaca gttctggagg ctccaagtct 180
gagatcaagg agtcggcatg tttggttcct cctgaggctt ctctccttgg cctgcagatg 240
accacgttct cactgtgttc tcagctggcc cttctctgtg catgtacatc cctggtgtct 300
cttcctccct ttgttgacta taaggatacc agtcctgttg gaccagagcc ccactgtaaa 360
ggcctcattt taacttaatc cacttaaata acttatttcc acacacagta agtctgaggt 420
tgagtctttt gaattctggg ggagacactg cagcccatca cgtatgttga cgtgtgccac 480
cgccacactg cctggttact gcagagtgtt agtaagtttt gaaattagaa agtataagtg 540
ctccagttct gttatttttc aggattatta gggctattct gggtcccttc catctccata 600
tgaatttgag aatcagcttg tttattcctg ctaaaattta gttgggattt tttttttttt 660
gagatggagc ctggctgtgt caccaggctg gtgtgcagtg gtgcaatctc gcctcactgc 720
aacctccacc tcccgggttc aagtgattct cctgcctcag cctcctgagt agctgggact 780
acatgcgcac gccaccacac tcagctaatt tttgtatttt tagtagagac ggggtttcac 840
catgttggcc aggatggtct tgatctcttg acctcgtgat ccgcccacct tggcctccca 900
aagtgctggg attacaggca tgagccaccg cgcctggcct cagttgggat tttcacaggg 960
ctcgttttga gtctgcagat caatttgggt agtactgaca tcttaaaatt aagtctaccg 1020
atccacataa gtgggatgct agttaatatg gacaagtgaa tttattactc ctccaaaaaa 1080
ctattttcac aaactttata tcaacatgag aaatcatgtt gtatcttttct acctggaggg 1140
agcaagaaag tcaggtggtg tgccttttgt acatgggcaa cccaatttct tatctagact 1200
ttcttttgct cgcctggaaa aaaaaaaaaa tgaggtattg caaaaatgtg ataattgctt 1260
tccttagtat gaaaaactgt taaaatgagt aaagcctgtg ctcaactaga attctcacat 1320

ttccgttttg atgtatccgc atttcacctc gtgccgaatt cgatatcaag cttatcgata 1380
ccgtcgacc 1389

<210> 55
<211> 748
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (15)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (17)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (29)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (32)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (646)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (741)
<223> n equals a,t,g, or c

<400> 55
ggtgcggccg tttanantag ggatccccng gntgcaggaa ttcggcacga gcttattgka 60
tgtgctmcag tgacaggcat ctgggacttt tccaatctga agctgttagg aacaccacca 120
ccatgaatat tcttgtatgt gttttctggc tctggggtgg agttgctggg tcatggggca 180
ggcacatttt catttttact tcagtaaaaa atgtcyagkg ggccagccac tgtgcctggc 240
ccaratgact tcttcacaag gagacacata ctgtgtgtat cagtcaggat ccaaccagga 300
gacaaaccac acagtaattt aaacagcgat tgtttaatat acagaattgt taactatgat 360
aggggatttg agtaagagga actggttact aagaaataaa gagaatgcta acgaatgtag 420
aaatagactg ggcacaatgg ctcacacctg taatcccagc actttgggag gcaaggcagg 480
tggatcacga ggtcaagaga tcgagaccat cctggccaac atggtgaaac cccgtcccta 540
ctacaaaaag tagctgggcg tggtggcgtg tgcctgtagt cccagctact caaggaggct 600
gaggcaggag aatagtttga acccaggagg cagaggttgc ggtganccga gatcttgcca 660
ctgcactcca gcctgggtga cagagagaga ctccatctca aaaaaaaaaa aaaaaaaaaa 720
actcgagggg gggcccggta nccaattc 748

<210> 56
<211> 4202
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (57)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (58)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (61)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (4137)
<223> n equals a,t,g, or c

<400> 56

accagctcaa agattcatga gtttcatcga gtcactgtga gtggagccca tgctggnntg	60
ntgccctctg tgtctgtgca tgcgcgtgtg tgtgtgggcg tgtgtgcatt gctgggccag	120
cttgaaggga aggcccgtca tgtccctgca ctctgttttg caagatgcca aaccccagtt	180
ctgatggggc tccaacagcc aggctgtggt cctttgacgt tcctcacctg ttgccaacct	240
atcccgtagt gaactgaaac cccaatgaag acagaactgt gcctggggag atgcaatgag	300
gtgagggctg aactcatcct tttatatttc ttttcaagat tggatcagag ctcatctcca	360
tccagtcttg tttctatgaa ggcttcaatc tgtttccatg caaatttgct aatcagagcc	420
cagagctgct gggtccctca tctccctcat ctattataga ttgacttaca gcagggagag	480
aatctcttta gctcattcct aatggggttg ggatcacaat atggtctggt ccaatctgca	540
tcttgttgtg tcccaagacc ctatctcctc cccaacattc ttattgcctt tggctcccag	600
taaggaacga attgggggcc agggaggaga acaggggga tcaagaaggg aaacccaatt	660
ccccctttga aagtgggttc tttgaactat gtgtttgggg gaagttcctc tggatactaa	720
tttgaattta tatacctcat gttttggggg tttgacgtat atatatatat atatatatat	780
atgcatatat atttcataat atttggaagg tttttgatgc tagaaaaatg gaaacaagag	840
aaccttcaaa aatggtactt agatgggaac tggaggccaa tctttcataa agccagcccc	900
atagctgctt gctgttaggc ctccagccat tttgacattg gggtggatag tcgattcacc	960
tgcctgtcag tcgattcacc tgcctgtcac ccagttctgt ggatgtgctg gtgctgagcc	1020
tttgctctct ttccaaatgg ttacagggat gttgatcagc tccaccagag ggagctctga	1080
tgggaggaat tgctctgcca tccttgtccc tgtgtctcct gtcggcaggc agccattgta	1140
tctcaccagc agaccaggag actggtccca aggttactgc accacagggc aatttcctgc	1200
catagttagg aaggaaacac ctgaactaaa tggaagagac atccctgcgg tgtttaatat	1260
cacacccatg ccctttgtca ggttaccatg tacagagatt acttggagag cctcatgccg	1320
tctctacctt cgcacactgg tcaagtatct gctgagcttc ttggccgcaa ggatgcagaa	1380
ataggctgag ggtccatggg aagaaagaca caatgaggca gtaggaggtg gggaagaaaa	1440
gaagacagac tttcaaaatg gaattaggca ctggggagag atcagtttcc ccacatcagg	1500
gagaagaagg tataggtggg gaaggggggtg gccaggagca gaaggaagaa gactcaagat	1560
ggaaagggag ccgctgtgcc tgtggcaata ccacttggag aggtcgactt cataccttca	1620
agccttttcc cctgggcttt tgattgtgtc tgtgcccccc ttcttgtcct ctctgcagat	1680
gcccagtagg ggctacctca tcctcgtgct gttcttgtgt ggctttctgg gcagtaggga	1740
tcttgaattt ccttttctaac actgtgcccg gcaaggcggg gagcattcct ctgccctttg	1800
tcttgtgcca acctggaaag gtgcagtcta gatttcagtg agaaccctgc cagctgagcc	1860
ctgtgcatct actaccttga cacagagtgt tttcccacta gaagctctgc tctgctctcc	1920
tggcccaagt aggggattcc atgccttccc tttcatggtc ttagcaccag cagcctagtt	1980
tctcccttcc agagtctcca gggatgacaa attggattgg agacaaacct cgtcagatgc	2040
tcatccccta aaaggttaat tgtgtatttg tggctgcgtg tgcctttgtg ttttcattct	2100
cttcccattt ttgtacattt tggtcttctc tgtggtttta tacttggtca aaagtactcg	2160
tcttggtatt gcactgttgt gtgcatgaga aaactggggg aaggctcact ggtacaagaa	2220

aggacccctg acccctttcc ttctctgtgg tccccggcat tagattgggg gttctgggag 2280
aggcaggtga atgtcctaag tgaattgttc tgttttgtaac tggaatgttt ttgaagtctt 2340
tggtgttgct ccgtgaaagg acatcgccac ctggtgctca tgaggtgtct ttgcagaaca 2400
ataaatggca aatgaacaac camaaaattg ttacycttgt tggcctttctg ctgtttgtag 2460
attagtgcac ctatctgtga gggatttggg ttacctccct gagtctgtaa gcaaccacaa 2520
gccctgccac tgggtggggg aagtccctcc ccaaccactt aaaaacaaat tttcccacat 2580
attaccccac cccacacatt tgaccctggc tagactttgt ttgcctaaag gaacagacca 2640
cattgctggg aaaatgagta agtgaacgtg tgggagaaaa acacttttag aatcacgaat 2700
attcactttt aaaggtctct ttgcctggct gcaatatagt gtgtgtttaa attatttaca 2760
ggctgttgtt tctcaaataa atgtttaata ttaatcattc ccaaactgac aagaacacaa 2820
aaataaaatg caaatacaga gccagctttg tcacccaaat ctgtgtctat ttctgatagt 2880
ccatggaatg tggtttttctt ggaagccagg gttggtctcc ccacagaccc caggctaagg 2940
tcaccagtta ggaacccagg acttggaagg cagagctgtg agctcttcca tcagggatct 3000
gactccgcaa aacgacttga tgaatgcaat tggcaaactc ccatgttcgg acttcatatg 3060
catgagccgt tggacagagg gtttcttagt atatacttta atgcatgttt atgtgcaatc 3120
ttgttagtgg gtatacaagt ttgtgaagaa cttctcattt caataggcag ttaatgtaat 3180
gcattaaaag cctgggaatt tggggctata ttttttcctt ctgactcaat aatcttcaaa 3240
gaattcatag gaaagtcagt acttgcagac aagtggttag cttggctaaa atgtacaaaa 3300
cacccagaac ccacaaaaca ctcagaggtt taggagaatg ttttaatgct taagaggcag 3360
gatcaagtga agaggttaca gaaatcagtg tctctggctg ggcagtcaag agagcgggct 3420
caaattctgt gactcacttc tctgtgtctc ggttggaaat gaatgggtat cctggttccc 3480
accttcccac acgctgtgat acttcaaact ccttgggtga agggcctctt ctcagcccaa 3540
gatcttgatt gtgaacatta acaaagagaa cagtcatcct ccacagaaga taactcatta 3600
atgacatttg attcagtgaa taaatatatc atttaaaaaa atattgtagg gggatcatga 3660
aagtagtgga ggtaattaca atcaggagag attggtatta aaattgagca aagtcccaac 3720
tctcaccaga tgacaattat gcatcctgct agatgcccca gggctgtcag cctggaactg 3780
aaataaatgt gttataagtg gtgctggatg ccttttttcag ttcatttgaa aacatggatt 3840
tgatcatgtc agctcccttt ctgctggaaa aaaaagtagt ttgcataatt ggtgttaact 3900
actctgtttt gattctacag agtaagtaat actcaaatgt ggtcttactt taacttcttg 3960
cctttgttac ccccagaacc atgcagacat tgaaatgtgg tgtgcgtgtg tgtgtgtgtg 4020
tgtgtgtgtg tgtgtgttca tataacagga ggacaggaaa ggtaaggacc cagaacaatg 4080
aagacttatt gaaatgtggg gggggtgtgt gtgtgtgtgt gttcatagaa caggagmaca 4140
ggaaaggtaa tgaccatcca tggaagatga aggggtagta cttagccgga cgcgtgggtc 4200
ga 4202

<210> 57
<211> 854
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (831)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (839)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (844)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (851)

<223> n equals a,t,g, or c

<400> 57
cgaaattact cctcactaaa gttgaacaaa agctggagct cgcgcgcctg caggtcgaca 60
ctagtggatc caaagaattc ggcacgagcg ggatcccggc aaaatgcaga ttccccaaaa 120
tttttgtaaa tacagatgac acttatgaag agctccattt aatcgtttat aaggtaacaa 180
ctgttttcct tccagcgtta atgattgtgc tgaagtggat ctttcttgca tgtgtacacg 240
agtgcatgtg caaacctctt aaatgtttct tggaaaagat attggaagtt ctgattatgg 300
taaaactcaa aatgggtgtt cttccagcgt aataagttta ttttcagctc cttttaaaca 360
gttctgttat tagtgaaaga ggaactgttt aagattgtga tttataaacg tgtgaagtct 420
cacgtgctct caaaccaaag gctgtcagag gttggtgctg cctgttctcg aaatggctct 480
ggatgggggc cgtagccacg tgtctgtgca tatgctgctt ttgctctgat tttaaagctg 540
taggcttgct aattccataa ggatcgtatt ttgkttctgt caggacatgg tcttgtaagg 600
atatgtactc aggttgtgtt tctaattaaa ggcagttttt gattcaagaa agaagacgga 660
gcatgtgcac gtgttttctcc tcttttcctgc ctgaggctgt ggagaagttt tcatttataa 720
aggctcagaa atgatgccgt gggggamcag gaaggagcgg agaactagtc tcgagagtac 780
ttctagagcg gccgcgggcc catcgatttt ccacccgggt ggggtaccag ntaagtgtng 840
aagnattccc ntta 854

<210> 58
<211> 1455
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (5)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (39)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (40)
<223> n equals a,t,g, or c

<400> 58
ggcanagctg ggatggggtc agcacccaga agccagccnn ctctgacagc ttcctctttg 60
gccaagccct gcctctgtac agcctcgagt ggacagccag agggcacgag ggagcccaga 120
gcccaagatg gagccccagc tggggcctga ggctgccgcc ctccgccctg gctggctggc 180
cctgctgctg tgggtctcag ccctgagctg ttcttttctcc ttgccagctt cttccctttc 240
ttctctggtg ccccaagtca gaaccagcta caattttgga aggactttcc tcggtcttga 300
taaatgcaat gcctgcatcg ggacatctat ttgcaagaag ttctttaaag aagaaataag 360
atctgacaac tggctggctt cccaccttgg actgcctccc gattccttgc tttcttatcc 420
tgcaaattac tcagatgatt ccaaaatctg gcgccctgtg gagatcttta gactggtcag 480
caaatatcaa aacgagatct cagacaggaa aatctgtgcc tctgcatcag ccccaaagac 540
ctgcagcatt gagcgtgtcc tgcggaaaac agagaggttc cagaaatggc tgcaggccaa 600
gcgcctcacg ccggacctgg tgcaggactg tcaccagggc cagagagaac taaagttcct 660
gtgtatgctg agataacacc agtgaaaaag cctggcatgg agcccagcac tgagaacttc 720
cagaaagtgt tagccttctc ccaactgtgt tataccaacc acattttcaa atagtaatca 780
ttaaagaggc ttctgcatca aaccttcaca tgcagctccc atgccacctc cagaattcac 840
caacacacag gcccaccagc aacaggtacc tttgcacaat atttttgat gacaatccaa 900
agccccggct ctttcccacc acactgtggt cccctagatg gggctgttgc tgagcccacc 960
ccaatcccag atgtgatccc ccctgtgatc tacttcctgg caagattcct ccagtcctgg 1020
acaggtcttc cctatgagat agaacctgat aaggagctag ggcaattctg acaacattac 1080

caaaggccca cataacttct aaattttggt ctggtctgaa ggaaaacctg ttcttgccct 1140
agtgatggat gaactctctt atctctggct tctagaggga aaaaaaagca tacctctttt 1200
acttttaag tacctccatc agagtcatga aatcacctgt caagactatc tatcttttat 1260
gtttccattc tggtaagaac tctttaaatg aggacactgc tgattgctgg tgatgttttt 1320
tgagcaaaca ctcgggggta tggatgaaag ccaatcgcag gtcaaatgac tccttgggga 1380
agctacttct cctctattca gatttcacta aaatcttcca agatgaaagc aaaaaaaaaa 1440
aaaaaaaaaa aaaaa 1455

<210> 59
<211> 593
<212> DNA
<213> Homo sapiens

<400> 59
ccacgcttcc ggagctctta cttctccagc aacgctcttc agtacataat aagcttaact 60
gataaacaga atatttagaa aggtgagact tgggcttacc attgggttta aatcataggg 120
acctagggcg agggttcagg gcttctctgg agcagatatt gtcaagttca tggccttagg 180
tagcatgtat ctggtcttaa ccctgattgt agcaaaagtt ctgagaggag ctgagccctg 240
ttgtggccca ttaaagaaca gggtcctcag gccctgcccg cttcctgtcc actgcccccc 300
ccccatcccc agcccagccg agggaatccc gtgggttgct tacctaccta taaggtggtt 360
tataagctgc tgtcctggcc actgcattca aattccaatg tgtacttcat agtgtaaaaa 420
tttatattat tgtgaggttt tttgtctttt ttttttttct ttttttttg gtatattgct 480
gtatctactt taacttccag aaataaacgt tatataggaa ccgacaaaaa aaaaaaaaaa 540
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 593

<210> 60
<211> 496
<212> DNA
<213> Homo sapiens

<400> 60
aattcggctt tcgagcggcc gcccgggcag gtcctgcttt ttgcttataa ttgacaacat 60
gtgcaaaaat accaaatttg tgtcctgtgc agtatgaaga attcagtgaa tattcattaa 120
tgtattagct tgttttgctc tctgttcata tatggctcta ttcttagaaa tataatttga 180
atgtgatctt tcaatagtct gaatatttta caaattatag ctatgtcttg tgaaaataac 240
ctcaaaaaga aaaatacgac tctgttgtct tacttgatat ttcttgccct agtaatgtac 300
ttgacattta tgttcctaag cagtgtaagt accagtagaa tttctctgtc aaactcaatg 360
atcatttagt acttttgtct tctcccatgt gcttgaagga aaaataaagt gtcactaccg 420
tatttcttgt tttcatcaaa aaataaaaat aatttaaaaa aaaaaaaaaa aaaaaaaaaa 480
aarrgggsgg cccccc 496

<210> 61
<211> 1292
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (71)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (697)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1280)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1287)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1291)
<223> n equals a,t,g, or c

<400> 61
aaacctcttc tataggtaaa gctggtacgc ctgcaggtac cggtccggaa ttcccgggtc 60
gacccacgcg nccggaaaga ggaaacatag aggtgccaaa ggaacaaaga cataatgatg 120
tcatccaagc caacaagcca tgctgaagta aatgaaacca tacccaaccc ttacccacca 180
agcagcttta tggctcctgg atttcaacag cctctgggtt caatcaactt agaaaaccaa 240
gctcagggtg cttagcgtgc tcagccctac ggcatcacat ctccgggaat ctttgctagc 300
agtcaaccgg gtcaaggaaa tatacaaatg ataaatccaa gtgtgggaac agcagtaatg 360
aactttaaag aagaagcaaa ggcactaggg gtgatccaga tcatggttgg attgatgcac 420
attggttttg gaattgtttt gtgtttaata tccttctctt ttagagaagt attaggtttt 480
gcctctactg ctgktattgg tggataccca ttctggggtg gccttttctt tattatctct 540
ggctctctct ctgtgtcagc atccaaggag ctttcccgtt gtctggtgaa aggcagcctg 600
ggaatgaaca ttggtaggtc tatcttggcc ttcattggag tgattctgct gctggtggat 660
atgtgcatca atggggtarc tggccaagac tactggnccg tgctttctgg aaaaggcatt 720
tcagccacgc tgatgatctt ctccytcttg gagttcttcg tagcttgtgc cacagcccat 780
tttgccaacc aagcaaacac cacaaccaat atgtctgtcc tggttattcc aaatatgtat 840
gaaagcaacc ctgkgacacc agcgtcttct tcagctcctc ccagatgcaa caactactca 900
gctaatgccc ctaaaagaaa aaggggtatc agtctaatct catggagaaa aactacttgc 960
aaaaacttct taagaagatg tcttttattg tctacaatga tttctagtct ttaaaaactg 1020
tgtttgagat ttgtttttag gttggtcgct aatgatggct gtatctccct tcactgtctc 1080
ttcctacatt accactacta catgctggca aaggtgaagg atcagaggac tgaaaaatga 1140
ttctgcaact ctcttaaagt tagaaatgtt tctgttcata ttacttttc cttaataaaa 1200
tgtcattaga aacaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagggc ggccgctcta 1260
gaggatccaa gcttacgtan gcgtgcntgc na 1292

<210> 62
<211> 398
<212> DNA
<213> Homo sapiens

<400> 62
ccccccctggc cccccccatta atgccatggt ttgggaggag cckgatcccc tgaaccccat 60
atttaacctc tactgcccms ggaaatgccc tacattattt ttccctaatt ggaagtataa 120
ttagagtgat gttggtaggg tagaaaaaga gggagtcact tgatgctttc aggttaatca 180
gagctatggg tgctacaggc ttgtcttttct aagtgacata ttcttatcta attctcagat 240
caggttttga aagmtwtggg ggtctttttta gattttaatc cctacttttct ttatggtaca 300
aatatgtaca aaagaaaaag gtcttatatt cttttacaca aatttataaa taaattttga 360
actccttctg tttaaaaaaa aaaaaaaaaa aaaaaaaa 398

<210> 63
<211> 1202
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (282)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (596)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (607)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (1200)
<223> n equals a,t,g, or c

<400> 63
gaattcggca cgagattaag ttgtgcactt taattgggtg aattgtacat gtragttata 60
tatctractg tagttgtwat taaaaaacaa caggaggcca tgtgggctgc taggagtagc 120
aatgtctgty cccagccagc aggtagagac cagggctgga cagagkagta tgggctgtgc 180
tgcagattat ttgtggtacc caactgttgc ataaaacagg gtgtgatctc ttgcattgct 240
atgcatgagt ggattcccag taaattgtgc caggctgcct gnatgatgtg tggcttgtgc 300
tttggatcgt aatgcttacc tatgctactt aagttacata ccctgtggcc tttgtggcca 360
ggactgtggg ctactacctg kagtgattcg ttaggggaaa ggacccacag cctgtgcagg 420
aggaaaaaag catctctgag tacagggtgg atgagctgga tgagctgccg ggcaagagcc 480
acgcacaccc aggtggtgag tcttaaggat aaggtggaat ttgccccata gctgtcctgg 540
acagaaactg cccagagaag aatgaatgga ggacataggg ctctgtggtc ccaccntttt 600
ttggganacc tgtgactggt cctgttacca tgtcaactta gccccaaacc catctctgat 660
tgacttggtt gcttattttg gcacattctt gctccacaca gccacataca tactggctgc 720
tcctcsaagg ccaggcagat gcagcagctg ttgggccasc aaagargaar gtcctggaar 780
gttctggcct gaacgctgca tctgttgtgt gacagccaca actgctcagg cttccttgtc 840
tgtgggtgca ctgtggggag gagtgttatg ataagaacat tggctctcag tcttccctgg 900
ggagaagttt ggcctcacgt gggatttggg cgttgccttt aggaaggctc tctgcatgtc 960
tagttccagt ttgtactggg aagaattaaa aaagtctgcc agcttcttta gtttgtcctg 1020
tcttttgtga tgattctttc tgagatcccc tcctatcagc tcaggagtgg gattttctgg 1080
agaaggaaag tgtttttcct gttcctcact gctcaccttg gggcattcag gaacatgggc 1140
ctgatgaatt tgcttgaagg cagtctgtaa tcccatcact ttgggagcca aagaggcggn 1200
ca 1202

<210> 64
<211> 1517
<212> DNA
<213> Homo sapiens

<400> 64
gattacgcca actcgaattt aaccctcact aaagggaaca aaagctggag ctccaccgcg 60
gtggcggccg ctctagaact agtggatccc ccgggctgca ggaattcggc acgagggagc 120
ccagagccca agatggagcc ccagctgggg cctgaggctg ccgccctccg ccctggctgg 180
ctggccctgc tgctgtgggt ctcagccctg agctgttctt tctccttgcc agcttcttcc 240
ctttcttctc tggtgcccca agtcagaacc agctacaatt ttggaaggac tttcctcggt 300
cttgataaat gcaatgcctg catcgggaca tctatttgca agaagttctt taaagaaaga 360
aataagatct gacaactggc tggcttccca ccttgggact gcctcccgat tcccttgctt 420
tctttatcctg gcaaattact caggatgatt ccaaaatctg gcgccctgtg gagatcttta 480

gactggtcag caaatatcaa aacgagatct cagacaggaa aatctgtgcc tctgcatcag 540
ccccaaagac ctgcagcatt gagcgtgtcc tgcggaaaac agagaggttc cagaaatggc 600
tgcaggccaa gcgcctcacg ccggacctgg tgcaggactg tcaccagggc cagagagaac 660
taaagttcct gtgtatgctg gagataacac cagtgaaaaa gccttggcat ggagccccag 720
cactgagaac ttccagaaag tgttagcctt ctcccaactg tgttatacca accacatttt 780
caaatagtaa tcattaaaga ggcttctgca tcaaaccttc acatgcagct cccatgccac 840
cctccagaat tcaccaacac acaggcccac cagcaacagg cttacctttt gcacaatatt 900
ttttgatgac aatccaaagc cccggctctt tcccaccaca ctgtggtccc ctagatgggg 960
ctgttgctga gcccacccca atcccagatg tgatcccccc gtgatctact tctgggccaa 1020
gattctccag tctggacagg tcttccccta tgagatagaa cctgataagg agctagggca 1080
attctgacaa cattaccaaa ggcccacata acttctaaat tttggtctgg tctgaaggaa 1140
aacctgttct tgccctagtg atggatgaac tctcttatct ctggcttcta gagggaaaaa 1200
aaagcatacc tcttttactt tttaagtacc tccatcagag tcatgaaatc acctgtcaag 1260
actatctatc ttttatgttt ccattctggt aagaactctt taaatgagga cactgctgat 1320
tgctggtgat gtttttttgag caaacactcg ggggtatgga tgaaagccaa tcgcaggtca 1380
aatgactcct tggggaagct acttctcctc tattcagatt tcactaaaat cttccaagat 1440
gaaagcaaaa aaaaaaaaaa aaaaaaaaaa actcgagggg gggcccgtac ccaattcgcc 1500
ctatagtgag tcgtatt 1517

<210> 65
<211> 526
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (66)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (106)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (484)
<223> n equals a,t,g, or c

<400> 65
ctctgacagc ttcctctttg gccaagccct gcctctgtac agcctcgagt ggacagccag 60
aggtcnagac tggagcccag agcccaagat ggagccccag ctgggmcctg aggctgccgc 120
cctccgccct ggctggctgg ccctgctgct gtgggtctca gccctgagct gttctttctc 180
cttgccagct tcttcccttt cttctctggt gccccaagtc agaaccagct acaattttgg 240
aaggactttc ctcggtcttg ataaatgcaa tgcctgcatc gggacatcta tttgcaagaa 300
gttctttaaa gaagaaataa gatctgacaa ctggctggct tcccaccttg ggactgcctc 360
ccgattccct ttgstttctt atccttgcaa attactccar atgattycca aaatctgggsg 420
sccttgtgga ratcttttaa ctggtcagca awtwtcaaac gaaatctcca aacaggaaat 480
cttntgcctc ctgcatccac ccccaaagaa cttgcacatt gacgtt 526

<210> 66
<211> 664
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (31)
<223> n equals a,t,g, or c

<220>
<221> SITE
<222> (63)
<223> n equals a,t,g, or c

<400> 66
caggctctca atacggactc actcataggg naaagctggt acgcctgcag gtaccggtcc 60
ggnaattccc gggtcgaccc acgcgtcgcr gagctcttac ttctccagca acrctcttca 120
gtacataata agcttaactg ataaacagaa tatttagaaa ggtgagactt gggcttacca 180
ttgggtttaa atcataggga cctagggcga gggttcaggg cttctctgga gcagatattg 240
tcaagttcat ggccttaggt agcatgtatc tggtcttaac tctgattgta gcaaaagttc 300
tgagaggagc tgagccctgt tgtggcccat taaagaacag ggtcctcagg ccctgcccgc 360
ttcctgtcca ctgcccccctc cccatcccca gcccagccga gggaatcccg tgggttgctt 420
acctacctat aaggtggttt ataagctgct gtcctggcca ctgcattcaa attccaatgt 480
gtacttcata gtgtaaaaat ttatattatt gtgaggtttt ttgtcttttt tttttttttt 540
tttttggta tattgctgta tctactttaa cttccagaaa taaacgttat atrggaaaaa 600
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 660
aaaa 664

<210> 67
<211> 156
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (156)
<223> Xaa equals stop translation

<400> 67
Met Arg Leu Trp Lys Ala Val Val Val Thr Leu Ala Phe Met Ser Val
1 5 10 15

Asp Ile Cys Val Thr Thr Ala Ile Tyr Val Phe Ser His Leu Asp Arg
20 25 30

Ser Leu Leu Glu Asp Ile Arg His Phe Asn Ile Phe Asp Ser Val Leu
35 40 45

Asp Leu Trp Ala Ala Cys Leu Tyr Arg Ser Cys Leu Leu Leu Gly Ser
50 55 60

His His Trp Cys Gly Gln Glu Gln Cys Ala Gly Ala Pro Ala Ala Ala
65 70 75 80

Gly Leu Val Ala Gly His His Pro Arg Val Pro Leu Arg Gly His Leu
85 90 95

Cys His Gly Glu Ala Ala Ala Leu Leu Arg Gly Ala Gln Ala His Pro
100 105 110

Gly Pro Leu Val Leu Gly Pro Val Arg Val Asp Val His Phe Thr Arg
115 120 125

Arg Ile Leu Pro Ala Leu Val Ala Ala Val His Arg Ala Ala Arg His

130 135 140

Pro Gly Pro Gly Ala Arg Gly Gly His Arg Gly Xaa
145 150 155

<210> 68
<211> 70
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation

<400> 68
Met Ala Ala Arg His Leu Pro Gly Phe His Thr Tyr Thr Asn Leu Leu
1 5 10 15

Phe Leu Leu Leu Pro Ser Leu Leu Met Gly Tyr Ser Glu Ser Pro Pro
20 25 30

Pro Ile Thr Asp Ser Trp Ala Pro Phe Ile Ser Leu Thr His His Val
35 40 45

Leu Ser Gln Ser Gln Ser Pro Leu Ser Ser Asn Cys Trp Ile Cys Leu
50 55 60

Ser Thr His Thr Gln Xaa
65 70

<210> 69
<211> 502
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (502)
<223> Xaa equals stop translation

<400> 69
Met Trp Lys Leu Trp Arg Ala Glu Glu Gly Ala Ala Ala Leu Gly Gly
1 5 10 15

Ala Leu Phe Leu Leu Leu Phe Ala Leu Gly Val Arg Gln Leu Leu Lys
20 25 30

Gln Arg Arg Pro Met Gly Phe Pro Pro Gly Pro Pro Gly Leu Pro Phe
35 40 45

Ile Gly Asn Ile Tyr Ser Leu Ala Ala Ser Ser Glu Leu Pro His Val
50 55 60

Tyr Met Arg Lys Gln Ser Gln Val Tyr Gly Glu Ile Phe Ser Leu Asp
65 70 75 80

Leu Gly Gly Ile Ser Thr Val Val Leu Asn Gly Tyr Asp Val Val Lys
85 90 95

Glu Cys Leu Val His Gln Ser Glu Ile Phe Ala Asp Arg Pro Cys Leu
100 105 110

Pro Leu Phe Met Lys Met Thr Lys Met Gly Gly Leu Leu Asn Ser Arg
115 120 125

Tyr Gly Arg Gly Trp Val Asp His Arg Arg Leu Ala Val Asn Ser Phe
130 135 140

Arg Tyr Phe Gly Tyr Gly Gln Lys Ser Phe Glu Ser Lys Ile Leu Glu
145 150 155 160

Glu Thr Lys Phe Phe Asn Asp Ala Ile Glu Thr Tyr Lys Gly Arg Pro
165 170 175

Phe Asp Phe Lys Gln Leu Ile Thr Asn Ala Val Ser Asn Ile Thr Asn
180 185 190

Leu Ile Ile Phe Gly Glu Arg Phe Thr Tyr Glu Asp Thr Asp Phe Gln
195 200 205

His Met Ile Glu Leu Phe Ser Glu Asn Val Glu Leu Ala Ala Ser Ala
210 215 220

Ser Val Phe Leu Tyr Asn Ala Phe Pro Trp Ile Gly Ile Leu Pro Phe
225 230 235 240

Gly Lys His Gln Gln Leu Phe Arg Asn Ala Ala Val Val Tyr Asp Phe
245 250 255

Leu Ser Arg Leu Ile Glu Lys Ala Ser Val Asn Arg Lys Pro Gln Leu
260 265 270

Pro Gln His Phe Val Asp Ala Tyr Leu Asp Glu Met Asp Gln Gly Lys
275 280 285

Asn Asp Pro Ser Ser Thr Phe Ser Lys Glu Asn Leu Ile Phe Ser Val
290 295 300

Gly Glu Leu Ile Ile Ala Gly Thr Glu Thr Thr Thr Asn Val Leu Arg
305 310 315 320

Trp Ala Ile Leu Phe Met Ala Leu Tyr Pro Asn Ile Gln Gly Gln Val
325 330 335

Gln Lys Glu Ile Asp Leu Ile Met Gly Pro Asn Gly Lys Pro Ser Trp
340 345 350

Asp Asp Lys Cys Lys Met Pro Tyr Thr Glu Ala Val Leu His Glu Val
355 360 365

Leu Arg Phe Cys Asn Ile Val Pro Leu Gly Ile Phe His Ala Thr Ser
370 375 380

Glu Asp Ala Val Val Arg Gly Tyr Ser Ile Pro Lys Gly Thr Thr Val
385 390 395 400

Ile Thr Asn Leu Tyr Ser Val His Phe Asp Glu Lys Tyr Trp Arg Asp
405 410 415

Pro Glu Val Phe His Pro Glu Arg Phe Leu Asp Ser Ser Gly Tyr Phe
420 425 430

Ala Lys Lys Glu Ala Leu Val Pro Phe Ser Leu Gly Arg Arg His Cys
435 440 445

Leu Gly Glu His Leu Ala Arg Met Glu Met Phe Leu Phe Phe Thr Ala
450 455 460

Leu Leu Gln Arg Phe His Leu His Phe Pro His Glu Leu Val Pro Asp
465 470 475 480

Leu Lys Pro Arg Leu Gly Met Thr Leu Gln Pro Gln Pro Tyr Leu Ile
485 490 495

Cys Ala Glu Arg Arg Xaa
500

<210> 70
<211> 189
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (85)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (104)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (164)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (189)
<223> Xaa equals stop translation

<400> 70
Met Arg Pro Ala Phe Ala Leu Cys Leu Leu Trp Gln Ala Leu Trp Pro
1 5 10 15

Gly Pro Gly Gly Gly Glu His Pro Thr Ala Asp Arg Ala Gly Cys Ser
20 25 30

Ala Ser Gly Ala Cys Tyr Ser Leu His His Ala Thr Met Lys Arg Gln
35 40 45

Ala Ala Glu Glu Ala Cys Ile Leu Arg Gly Gly Ala Leu Ser Thr Val

50 55 60

Arg Ala Gly Ala Glu Leu Arg Ala Val Leu Ala Leu Leu Arg Ala Gly
65 70 75 80

Pro Gly Pro Gly Xaa Gly Ser Lys Asp Leu Leu Phe Trp Val Ala Leu
85 90 95

Glu Arg Arg Arg Ser His Cys Xaa Leu Glu Asn Glu Pro Leu Arg Gly
100 105 110

Phe Ser Trp Leu Ser Ser Asp Pro Gly Gly Leu Glu Ser Asp Thr Leu
115 120 125

Gln Trp Val Glu Glu Pro Gln Arg Ser Cys Thr Ala Arg Arg Trp Val
130 135 140

Leu Pro Gly His Arg Trp Gly Arg Ala Arg Ser Trp Lys Glu Met Arg
145 150 155 160

Cys His Leu Xaa Ala Asn Ala Thr Cys Ala Ser Thr Ser Leu Arg Ser
165 170 175

Cys Val Leu Arg Arg Ala Pro Gly Pro Pro Leu Thr Xaa
180 185

<210> 71
<211> 486
<212> PRT
<213> Homo sapiens

<400> 71
Met Gln Pro Ser Gly Leu Glu Gly Pro Gly Thr Phe Gly Arg Trp Pro
1 5 10 15

Leu Leu Ser Leu Leu Leu Leu Leu Leu Leu Leu Gln Pro Val Thr Cys
20 25 30

Ala Tyr Thr Thr Pro Gly Pro Pro Arg Ala Leu Thr Thr Leu Gly Ala
35 40 45

Pro Arg Ala His Thr Met Pro Gly Thr Tyr Ala Pro Ser Thr Thr Leu
50 55 60

Ser Ser Pro Ser Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met
65 70 75 80

Arg Asp Phe Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu
85 90 95

Arg Gln Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe
100 105 110

Ser Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
115 120 125

Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg Asp
130 135 140

```
Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg Met Cys
145                 150                 155                 160

Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys Ala Leu Asn
                165                 170                 175

Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu Gly Gly His Ser
            180                 185                 190

Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe Tyr Met Leu Gly Val
        195                 200                 205

Arg Tyr Leu Thr Leu Thr His Thr Cys Asn Thr Pro Trp Ala Glu Ser
    210                 215                 220

Ser Ala Lys Gly Val His Ser Phe Tyr Asn Asn Ile Ser Gly Leu Thr
225                 230                 235                 240

Asp Phe Gly Glu Lys Val Val Ala Glu Met Asn Arg Leu Gly Met Met
                245                 250                 255

Val Asp Leu Ser His Val Ser Asp Ala Val Ala Arg Arg Ala Leu Glu
            260                 265                 270

Val Ser Gln Ala Pro Val Ile Phe Ser His Ser Ala Ala Arg Gly Val
        275                 280                 285

Cys Asn Ser Ala Arg Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys
    290                 295                 300

Lys Asn Gly Gly Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln
305                 310                 315                 320

Cys Asn Pro Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His
                325                 330                 335

Ile Lys Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr
            340                 345                 350

Asp Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr
        355                 360                 365

Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu Glu
    370                 375                 380

Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg Gln Val
385                 390                 395                 400

Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu Glu Asp Lys
                405                 410                 415

Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser Asp Leu Ser Arg
            420                 425                 430

Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln Glu Leu Thr Glu Ile
        435                 440                 445

Pro Ile His Trp Thr Ala Lys Leu Pro Ala Lys Trp Ser Val Ser Glu
```

```
    450                 455                 460

Ser Ser Pro His Met Ala Pro Val Leu Ala Val Val Ala Thr Phe Pro
465                 470                 475                 480

Val Leu Ile Leu Trp Leu
                485
```

<210> 72
<211> 88
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (88)
<223> Xaa equals stop translation

<400> 72

```
Met Val Ala Ser Gly Trp Leu Leu Leu Ala Gln Ala Ser Phe Leu Pro
  1               5                  10                  15

Leu Ala Pro Pro Gly Ala Leu Gly Ala Gly Cys Trp Met Asp Gly Arg
            20                  25                  30

Pro Leu Ala Pro Pro Gly Ala Leu Gly Ala Gly Cys Trp Met Gly Gly
        35                  40                  45

Arg Pro Leu Ala Pro Pro Gly Ala Leu Gly Ala Gly Cys Trp Met Gly
    50                  55                  60

Gly Arg His Gly Ala Pro Leu Leu Gly Cys Leu Cys Pro Ser Gly Leu
65                  70                  75                  80

Cys Ser Ser Tyr Val Cys Leu Xaa
                85
```

<210> 73
<211> 299
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (167)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 73

```
Met Met Ser Ser Lys Pro Thr Ser His Ala Glu Val Asn Glu Thr Ile
  1               5                  10                  15

Pro Asn Pro Tyr Pro Pro Ser Ser Phe Met Ala Pro Gly Phe Gln Gln
            20                  25                  30

Pro Leu Gly Ser Ile Asn Leu Glu Asn Gln Ala Gln Gly Ala Gln Arg
        35                  40                  45
```

Ala Gln Pro Tyr Gly Ile Thr Ser Pro Gly Ile Phe Ala Ser Ser Gln
50 55 60

Pro Gly Gln Gly Asn Ile Gln Met Ile Asn Pro Ser Val Gly Thr Ala
65 70 75 80

Val Met Asn Phe Lys Glu Glu Ala Lys Ala Leu Gly Val Ile Gln Ile
85 90 95

Met Val Gly Leu Met His Ile Gly Phe Gly Ile Val Leu Cys Leu Ile
100 105 110

Ser Phe Ser Phe Arg Glu Val Leu Gly Phe Ala Ser Thr Ala Val Ile
115 120 125

Gly Gly Tyr Pro Phe Trp Gly Gly Leu Ser Phe Ile Ile Ser Gly Ser
130 135 140

Leu Ser Val Ser Ala Ser Lys Glu Leu Ser Arg Cys Leu Val Lys Gly
145 150 155 160

Ser Leu Gly Met Asn Ile Xaa Ser Ser Ile Leu Ala Phe Ile Gly Val
165 170 175

Ile Leu Leu Leu Val Asp Met Cys Ile Asn Gly Val Ala Gly Gln Asp
180 185 190

Tyr Trp Ala Val Leu Ser Gly Lys Gly Ile Ser Ala Thr Leu Met Ile
195 200 205

Phe Ser Leu Leu Glu Phe Phe Val Ala Cys Ala Thr Ala His Phe Ala
210 215 220

Asn Gln Ala Asn Thr Thr Thr Asn Met Ser Val Leu Val Ile Pro Asn
225 230 235 240

Met Tyr Glu Ser Asn Pro Val Thr Pro Ala Ser Ser Ser Ala Pro Pro
245 250 255

Arg Cys Asn Asn Tyr Ser Ala Asn Ala Pro Lys Arg Lys Arg Gly Ile
260 265 270

Ser Leu Ile Ser Trp Arg Lys Thr Thr Cys Lys Asn Phe Leu Arg Arg
275 280 285

Cys Leu Leu Leu Ser Thr Met Ile Ser Ser Leu
290 295

<210> 74
<211> 48
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (48)
<223> Xaa equals stop translation

<400> 74
Met Ala Leu His Pro Gly Ser Ser His Leu Leu Val Ala Val Pro Val
1 5 10 15

Ser Trp Phe Leu Phe Cys Ile Pro Gly Ile Ser Phe Ile Thr Leu Ser
20 25 30

Trp Ser Tyr Gln Glu Ser Pro Val Ser Phe Leu Ser Val Glu Gly Xaa
35 40 45

<210> 75
<211> 44
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (44)
<223> Xaa equals stop translation

<400> 75
Met Tyr Ser Leu Phe Leu Thr Cys Ile Phe Pro Phe Thr Leu Cys His
1 5 10 15

Lys Lys Ile Leu Met Val Ile His Asp Phe Thr Gly Pro Val His Val
20 25 30

Phe Pro Glu Lys Thr Val Leu Glu Trp Asn Tyr Xaa
35 40

<210> 76
<211> 140
<212> PRT
<213> Homo sapiens

<400> 76
Met Cys Ala Met Tyr Leu Met Ile Lys Ala Phe Leu Pro Lys Met Leu
1 5 10 15

Ala Gln Lys Ser Gly Asn Ile Ile Asn Met Ser Ser Val Ala Ser Ser
20 25 30

Val Lys Gly Val Val Asn Arg Cys Val Tyr Ser Thr Thr Lys Ala Ala
35 40 45

Val Ile Gly Leu Thr Lys Ser Val Ala Ala Asp Phe Ile Gln Gln Gly
50 55 60

Ile Arg Cys Asn Cys Val Cys Pro Gly Thr Val Asp Thr Pro Ser Leu
65 70 75 80

Gln Glu Arg Ile Gln Ala Arg Gly Asn Pro Glu Glu Ala Arg Asn Asp
85 90 95

```
Phe Leu Lys Arg Gln Lys Thr Gly Arg Phe Ala Thr Ala Glu Glu Ile
            100                 105                 110

Ala Met Leu Cys Val Tyr Leu Ala Ser Asp Glu Ser Ala Tyr Val Thr
        115                 120                 125

Gly Asn Pro Val Ile Ile Asp Gly Gly Trp Ser Leu
    130                 135                 140


<210> 77
<211> 153
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (153)
<223> Xaa equals stop translation

<400> 77
Met Leu Val Val Cys Leu Leu Leu Ala Thr Gly Phe Cys Leu Phe Arg
  1               5                  10                  15

Gly Leu Ile Ala Leu Asp Cys Pro Ser Glu Leu Cys Arg Leu Tyr Thr
            20                  25                  30

Gln Phe Gln Glu Pro Tyr Leu Lys Asp Pro Ala Ala Tyr Pro Lys Ile
        35                  40                  45

Gln Met Leu Ala Tyr Met Phe Tyr Ser Val Pro Tyr Phe Val Thr Ala
    50                  55                  60

Leu Tyr Gly Leu Val Val Pro Gly Cys Ser Trp Met Pro Asp Ile Thr
65                  70                  75                  80

Leu Ile His Ala Gly Gly Leu Ala Gln Ala Gln Phe Ser His Ile Gly
                85                  90                  95

Ala Ser Leu His Ala Arg Thr Ala Tyr Val Tyr Arg Val Pro Glu Glu
            100                 105                 110

Ala Lys Ile Leu Phe Leu Ala Leu Asn Ile Ala Tyr Gly Val Leu Pro
        115                 120                 125

Gln Leu Leu Ala Tyr Arg Cys Ile Tyr Lys Pro Glu Phe Phe Ile Lys
    130                 135                 140

Thr Lys Ala Glu Glu Lys Val Glu Xaa
145                 150


<210> 78
<211> 180
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
```

<222> (48)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (180)
<223> Xaa equals stop translation

<400> 78
Met Ala Ala Ala Ser Ala Gly Ala Thr Arg Leu Leu Leu Leu Leu Leu
1 5 10 15

Met Ala Val Ala Ala Pro Ser Arg Ala Arg Gly Ser Gly Cys Arg Ala
20 25 30

Gly Thr Gly Ala Arg Gly Ala Gly Ala Glu Gly Arg Glu Gly Glu Xaa
35 40 45

Pro Val Ser Ser Ala Ile Pro Arg Arg Val Cys Trp Ser Leu Leu Ser
50 55 60

Pro Arg Pro Thr Arg Pro Pro Gly Pro Ala Pro Cys Pro Leu Pro Ser
65 70 75 80

Ala Gly Arg Gly Ala Ala Gly Leu Gly Pro Leu Ala Gln Gln Pro Val
85 90 95

Ser Pro Ala Pro Ala Ser Pro Met Ala Pro Cys Ser Pro Arg Gly Phe
100 105 110

Pro Pro Ala His Gly Val Glu Pro Glu Ile Leu Ala Thr Met Pro Val
115 120 125

Leu Thr Ser His Pro Pro Thr Pro Ser Pro Cys Ser Leu Gly Thr Cys
130 135 140

Arg Leu Leu Ser Ser Leu Cys Ala Phe Val Pro Gly Gly Leu Thr Leu
145 150 155 160

Leu Ser Leu Ala Gly Leu Gly Gly Pro Val Gln Ala Pro Ala Ala Pro
165 170 175

Pro Ser Leu Xaa
180

<210> 79
<211> 70
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation

<400> 79
Met Leu Met Gly Ser Ile Leu Tyr Val Leu Phe Cys Val Trp Leu Leu
1 5 10 15

Gln Cys Ile Phe Glu Ile Tyr Pro His Cys Cys Val Tyr Pro Lys Cys
20 25 30

Val Leu Phe His Cys Gln Ile Met Phe Cys Tyr Met Asn Ile Leu Gln
35 40 45

Asn Ile Cys Leu Phe Ile Tyr Trp Trp Ile Phe Ala Phe Val Pro Val
50 55 60

Trp Gly Tyr Tyr Glu Xaa
65 70

<210> 80
<211> 191
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (191)
<223> Xaa equals stop translation

<400> 80
Met Arg Ala Cys Pro Trp Ala Gln Val Pro Leu Tyr Leu Leu Leu Asp
1 5 10 15

Gly His Leu Ala Val Ser Gln Ala Gly Val Met Ala Gly Val Ser Gly
20 25 30

Gly Arg Gly Gly Arg Arg Leu Arg Gly Pro Ile Thr Ser Arg Val Ile
35 40 45

Thr Ser Cys Gln Gln Pro Gly Val Gly Val Trp Val Ser Leu Arg Pro
50 55 60

Glu Leu Leu Asn Leu Glu Ser Leu Gly Val Ala Ala Lys Gly Val Tyr
65 70 75 80

Asp Lys His Val Ser Leu Asp Ile Ser Gly Glu Arg Ser Gly Ala Leu
85 90 95

Val Thr Phe Ser Lys Gly Cys Trp Ala Ser Glu Gln Ser Pro Pro Met
100 105 110

Ser Gln Pro Leu Gln Gly Pro Ser Leu Ser Leu His Pro Arg Pro Ser
115 120 125

Ala Ala Leu Val Met Ser Arg Arg Lys Val Leu Gly Cys Ala Gln Ser
130 135 140

Gln Glu Ser Lys Ile Cys Gln Ala Lys Ala Pro Gly Lys Ser Arg Arg
145 150 155 160

Ser Leu Gly Trp Pro Pro Gly Cys Gly Ala Ala Arg Ala Lys Thr Val
165 170 175

Asn Thr Ala Leu Gln Leu Ser Glu Pro Gln Phe Ser Asn Leu Xaa

180 185 190

<210> 81
<211> 166
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (127)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (166)
<223> Xaa equals stop translation

<400> 81

```
Met Cys Leu Ser Leu Leu Ala Ala Leu Ala Cys Ser Ala Gly Asp Thr
 1               5                  10                  15

Trp Ala Ser Glu Val Gly Pro Val Leu Ser Lys Ser Ser Pro Arg Leu
            20                  25                  30

Ile Thr Thr Trp Glu Lys Val Pro Val Gly Thr Asn Gly Gly Val Thr
        35                  40                  45

Val Val Gly Leu Val Ser Ser Leu Leu Gly Gly Thr Phe Val Gly Ile
    50                  55                  60

Ala Tyr Phe Leu Thr Gln Leu Ile Phe Val Asn Asp Leu Asp Ile Ser
65                  70                  75                  80

Ala Pro Gln Trp Pro Ile Ile Ala Phe Gly Gly Leu Ala Gly Leu Leu
                85                  90                  95

Gly Ser Ile Val Asp Ser Tyr Leu Gly Ala Thr Met Gln Tyr Thr Gly
            100                 105                 110

Leu Asp Glu Ser Thr Gly Met Val Val Asn Ser Pro Thr Asn Xaa Ala
        115                 120                 125

Arg His Ile Ala Gly Lys Pro Ile Leu Asp Asn Asn Ala Val Asn Leu
    130                 135                 140

Phe Ser Ser Val Leu Ile Ala Leu Leu Leu Pro Thr Ala Ala Trp Gly
145                 150                 155                 160

Phe Trp Pro Arg Gly Xaa
                165
```

<210> 82
<211> 42
<212> PRT
<213> Homo sapiens

<220>

<221> SITE
<222> (42)
<223> Xaa equals stop translation

<400> 82
Met Cys Gly Leu Val Ile Leu Trp Pro Cys Ile Met Thr Leu Phe Ser
1 5 10 15

Ser Leu Ser Thr Gly Asp Val Leu Leu Pro Cys Lys Ile Leu Val Gly
20 25 30

Leu Arg Val Phe Ile Gly Ala Arg Val Xaa
35 40

<210> 83
<211> 49
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (49)
<223> Xaa equals stop translation

<400> 83
Met Cys Phe Pro Ala Cys Leu Cys Ser Pro Leu Thr Cys Leu Leu Ser
1 5 10 15

Val Trp Lys Pro Gly Leu Ala His Ala Val Val His Cys Met Leu Glu
20 25 30

Pro Val Glu Phe Ala Arg Val Val Gln Tyr Glu Ala Gly His Val Leu
35 40 45

Xaa

<210> 84
<211> 57
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation

<400> 84
Met Leu Ile Ala Lys Leu Pro Val Leu Glu Ser Ile Cys Phe Phe Met
1 5 10 15

Leu Phe Leu Asn Pro Leu Val Ile Leu Leu Ser Leu Asn Asn Ala Leu
20 25 30

Pro Leu Val Phe His Pro His Ser Glu Phe Leu Glu Asp His Asn Arg
35 40 45

Gly Asp Thr Leu Pro Ser Ile Val Xaa
50 55

<210> 85
<211> 43
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (43)
<223> Xaa equals stop translation

<400> 85
Met Leu Val Ala Thr Ala Val Cys Cys Tyr Leu Phe Trp Leu Ile Ala
1 5 10 15

Ile Leu Ala Gln Leu Asn Pro Leu Phe Gly Pro Gln Leu Lys Asn Glu
20 25 30

Thr Ile Trp Tyr Val Arg Phe Leu Trp Glu Xaa
35 40

<210> 86
<211> 41
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (41)
<223> Xaa equals stop translation

<400> 86
Met Leu Leu Leu Trp Ala Phe Ser Gly Val Cys Ala Val Pro Ala Arg
1 5 10 15

Ala Thr Pro Val Pro Ser Ser Phe Cys Pro Gln Gly Pro Ser Leu Cys
20 25 30

Pro Lys Gln Pro Ala Ser Leu Ala Xaa
35 40

<210> 87
<211> 74
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (74)
<223> Xaa equals stop translation

<400> 87
Met His Ala Tyr Ala Cys Val Cys Ala Cys Met Leu Val Cys Val Cys
1 5 10 15

```
Val Cys Val Cys Arg Ala Leu Val Ile Pro Thr Glu Gln Arg His Arg
                20                  25                  30

Arg Val Ala His Gly Arg Thr Ser Asp Ser Thr Leu Pro Cys Thr Val
            35                  40                  45

Lys Ile Trp Pro Ser Glu Arg Gly Asp Gly Arg Gly Glu Arg Gly Glu
        50                  55                  60

Arg Arg Arg Gly Thr Asp Trp Arg Gly Xaa
 65                  70
```

<210> 88
<211> 47
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (34)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation

<400> 88

```
Met His His Pro Asn Leu Cys Leu His Phe His Ala Ala Phe Ser Leu
  1               5                  10                  15

Cys Val His Gly Cys Leu Cys Val Gln Phe Phe Pro Phe Tyr Lys Asp
                20                  25                  30

Thr Xaa His Ile Gly Leu Glu Pro Thr Leu Met Thr Ser Ser Xaa
            35                  40                  45
```

<210> 89
<211> 63
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (63)
<223> Xaa equals stop translation

<400> 89

```
Met Leu Phe Leu Asn Val Ile Leu Phe Ser Leu Thr Val Phe Thr Leu
  1               5                  10                  15

Ile Ser Thr Ala His Thr Leu Asp Arg Ala Val Arg Ser Asp Trp Leu
                20                  25                  30

Leu Leu Val Leu Ile Tyr Ala Cys Leu Glu Glu Leu Ile Pro Glu Leu
            35                  40                  45
```

Ile Phe Asn Leu Tyr Cys Gln Gly Asn Ala Thr Leu Phe Phe Xaa
50 55 60

<210> 90
<211> 70
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (20)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (70)
<223> Xaa equals stop translation

<400> 90
Met Leu Leu Lys Leu His Thr Leu Trp Pro Leu Trp Pro Gly Leu Trp
1 5 10 15

Ala Thr Thr Xaa Ser Asp Ser Leu Gly Glu Arg Thr His Ser Leu Cys
20 25 30

Arg Arg Lys Lys Ala Ser Leu Ser Thr Gly Trp Met Ser Trp Met Ser
35 40 45

Cys Arg Ala Arg Ala Thr His Thr Gln Val Val Ser Leu Lys Asp Lys
50 55 60

Val Glu Phe Ala Pro Xaa
65 70

<210> 91
<211> 57
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (57)
<223> Xaa equals stop translation

<400> 91
Met Lys Glu Ser Arg Lys Met Leu Trp Val Phe Lys Met Leu Phe Phe
1 5 10 15

Lys Ile Val Leu Trp Val Asn Leu Leu Ser Ala Ala Leu Ser Cys Ile
20 25 30

Gln Lys Gln Met Leu Gly Ile Ala Pro Gln Lys Cys Val Pro Lys Leu
35 40 45

Cys Phe Gln Leu Tyr Ile Met Arg Xaa
50 55

<210> 92
<211> 68
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (68)
<223> Xaa equals stop translation

<400> 92
Met Tyr Phe Leu Leu Ser Val Thr Ser Glu Ser Val Trp Arg Ser Trp
1 5 10 15

Thr Leu Thr Phe His Ser Phe Ala Ile Leu Ser Leu Arg Cys Trp Thr
20 25 30

Ser Leu Leu Leu Leu Ile Pro Leu Thr Ser Cys Asn Phe Ser Ser Pro
35 40 45

Ser Trp Arg Met Thr Ala Ser Gln Val Pro Ser Lys Arg Lys Ala Ser
50 55 60

Met Thr Leu Xaa
65

<210> 93
<211> 45
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (45)
<223> Xaa equals stop translation

<400> 93
Met Lys Gly Trp Pro Val Phe Leu Leu Val Gln Ala Val Thr Phe Leu
1 5 10 15

Ser Val Ala Gln Ser Gly Ala Met Ala Cys Ala Ala Ser Gly Val Val
20 25 30

Tyr Ser Val Asp Val Pro Ala Cys Ser Ser Arg Ser Xaa
35 40 45

<210> 94
<211> 55
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (55)
<223> Xaa equals stop translation

<400> 94
Met Val Leu Ser Pro Trp Ala Cys Leu Phe Val Val Phe Phe Pro Tyr
1 5 10 15

Ile Gln Ser Ser Leu Arg Ser Asp Lys His Leu Gln Leu Ser Asn Ile
20 25 30

Leu Pro Thr Pro Ser His His Ile His Leu Pro Ala Ser Ile Cys Ile
35 40 45

Gln Leu Arg Ala Gly Asn Xaa
50 55

<210> 95
<211> 41
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (41)
<223> Xaa equals stop translation

<400> 95
Met Cys Glu Tyr Val Leu Leu Leu Tyr Ile Val Leu Leu Cys Asn Arg
1 5 10 15

Ser Tyr Ala Val Phe Thr Gln Cys Val Leu Arg Ser Ser Pro Ile Asp
20 25 30

Ser Ser Arg Asn Ala Val Leu Leu Xaa
35 40

<210> 96
<211> 41
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (41)
<223> Xaa equals stop translation

<400> 96
Met Thr Thr Pro Gly Leu Leu Ile Leu Phe Leu Ala His Val Cys Leu
1 5 10 15

Val Asn His Gln Gln Ala Ala Glu Pro Gly Trp Lys Gln His Cys Cys
20 25 30

Asn Trp Glu Gly His Arg Val Leu Xaa
35 40

<210> 97
<211> 50

<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (14)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (50)
<223> Xaa equals stop translation

<400> 97
Met Leu Cys His Val Tyr Leu Leu Leu Val Gly His Ala Xaa Phe Ser
1 5 10 15

Val Gly Leu Met Gly Gln Arg Lys Leu Arg Cys Ser Ile Asn Ser Ala
20 25 30

Leu Arg Ser Ala Val Ser Ser Ala Trp Asn Ser Ser Ile Cys Phe Asn
35 40 45

Ser Xaa
50

<210> 98
<211> 58
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (58)
<223> Xaa equals stop translation

<400> 98
Met Ser Glu Trp Cys Gln Pro Asp Gln Ile Leu Leu Gln Phe Pro Val
1 5 10 15

Leu Ala Thr Met Ser Val Ala Phe Leu Ile Gln Arg Cys Phe Cys Phe
20 25 30

Trp Trp Phe Val Leu Asn Ala Phe Ser Ile Pro Ser Gly Thr Glu Lys
35 40 45

Lys Arg Ile Val Phe Lys Lys Trp Leu Xaa
50 55

<210> 99
<211> 52
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (52)

<223> Xaa equals stop translation

<400> 99
Met Lys Val Val Val Val Met Val Val Ile Leu Val Val Val Thr Leu
1 5 10 15

Val Val Val Val Met Val Val Ile Leu Val Met Val Val Met Val Val
20 25 30

Ala Leu Val Thr Leu Thr Trp Gly Pro Val Ala Val Thr Val Asp Ala
35 40 45

Gly Ser Trp Xaa
50

<210> 100
<211> 45
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (45)
<223> Xaa equals stop translation

<400> 100
Met Pro His Phe Leu Arg Trp Leu Leu Thr Thr Phe Arg Ile Arg Ala
1 5 10 15

Ser Cys Gly Ser Thr Pro Cys Trp Ser Pro Ser His Leu Gly Cys Leu
20 25 30

Gln Pro Ala Leu Pro Arg Asp Leu Ser His Leu Glu Xaa
35 40 45

<210> 101
<211> 58
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (58)
<223> Xaa equals stop translation

<400> 101
Met Ser Thr Lys Ile Leu Gln Phe Leu Phe Ser Ser Cys Cys Trp Val
1 5 10 15

Pro Pro Met Leu Phe Leu Phe Lys Asn Thr Lys Cys Arg Thr Ser Leu
20 25 30

Leu Tyr Cys Phe Tyr Phe Ile Leu Leu Thr Cys Ser Leu Ser Glu Tyr
35 40 45

Asp Ser Leu Leu Ser Ser Lys Val Phe Xaa
50 55

<210> 102
<211> 41
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (41)
<223> Xaa equals stop translation

<400> 102
Met Phe Trp Phe Trp Phe Leu Leu Ser Leu Ser Phe Gln Gln Val Glu
1   5   10   15

Gln Gln Gln Val Phe Gln Cys Ile Cys Cys Thr Arg Thr Lys Tyr Lys
            20   25   30

Ser Val Trp His Gln Lys Ser Lys Xaa
        35   40

<210> 103
<211> 143
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (104)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (105)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (143)
<223> Xaa equals stop translation

<400> 103
Met Thr Leu Ile Glu Val Leu Val Ser Val Leu Ile Leu Ala Val Gly
1   5   10   15

Leu Leu Arg Ala Ala Val Ile Gln Leu Asn Ala Leu Lys Tyr Thr Asp
            20   25   30

Ser Ser Arg Met Thr Ser Gln Ala Ser Phe Ile Ala Tyr Asp Met Leu
        35   40   45

Asp Arg Ile Arg Ala Asn Ser Gly Ala Asp Tyr Ser Trp Gly Gln Gly

50 55 60

Glu Arg Ala Pro Ser Thr Thr Ser Val Ala Ser Val Arg Asp Leu Asp
65 70 75 80

Leu His Asp Phe Glu Ala Asn Ile Val Gly Phe Ala Gly Glu Ser Ala
85 90 95

Lys Gly Ser Val Ala Val Asn Xaa Xaa Glu Val Thr Ile Ser Ile Ser
100 105 110

Trp Asp Xaa Ser Arg Gly Ala Asn Ala Gln Gly Thr Arg Glu Thr Phe
115 120 125

Thr Leu Thr Ser Arg Val Ala Val Asp Pro Arg Val Leu Pro Xaa
130 135 140

<210> 104
<211> 44
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (44)
<223> Xaa equals stop translation

<400> 104
Met Ala Phe Phe Phe Ala Leu Phe Val Ile Phe Phe Val Ile Val Val
1 5 10 15

Gln Met Glu Ser His Ser Gly Leu Gly Lys Lys Ser Lys Ile Leu Ser
20 25 30

Gly Gly Gln Gly Glu Glu Val Tyr Phe Leu Asp Xaa
35 40

<210> 105
<211> 63
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (63)
<223> Xaa equals stop translation

<400> 105
Met Tyr Phe Tyr Leu Ala Val Lys Pro Pro Leu Leu Trp Ala Arg Pro
1 5 10 15

Gln Val Ser Cys Arg Leu Ser Val Ser Leu Ala Trp Ser Tyr His Leu
20 25 30

His Leu Trp Ala Leu Phe Leu Phe Ser Ile Leu Leu Gln Cys Arg Ala
35 40 45

Arg Phe Leu Leu Leu Leu Val Leu Ser Gln Thr Gln Asp Leu Xaa
50 55 60

<210> 106
<211> 283
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (283)
<223> Xaa equals stop translation

<400> 106
Met Gly Ser Pro Gly Met Val Leu Gly Leu Leu Val Gln Ile Trp Ala
1 5 10 15

Leu Gln Glu Ala Ser Ser Leu Ser Val Gln Gln Gly Pro Asn Leu Leu
20 25 30

Gln Val Arg Gln Gly Ser Gln Ala Thr Leu Val Cys Gln Val Asp Gln
35 40 45

Ala Thr Ala Trp Glu Arg Leu Arg Val Lys Trp Thr Lys Asp Gly Ala
50 55 60

Ile Leu Cys Gln Pro Tyr Ile Thr Asn Gly Ser Leu Ser Leu Gly Val
65 70 75 80

Cys Gly Pro Gln Gly Arg Leu Ser Trp Gln Ala Pro Ser His Leu Thr
85 90 95

Leu Gln Leu Asp Pro Val Ser Leu Asn His Ser Gly Ala Tyr Val Cys
100 105 110

Trp Ala Ala Val Glu Ile Pro Glu Leu Glu Glu Ala Glu Gly Asn Ile
115 120 125

Thr Arg Leu Phe Val Asp Pro Asp Asp Pro Thr Gln Asn Arg Asn Arg
130 135 140

Ile Ala Ser Phe Pro Gly Phe Leu Phe Val Leu Leu Gly Val Gly Ser
145 150 155 160

Met Gly Val Ala Ala Ile Val Trp Gly Ala Trp Phe Trp Gly Arg Arg
165 170 175

Ser Cys Gln Gln Arg Asp Ser Gly Asn Ser Pro Gly Asn Ala Phe Tyr
180 185 190

Ser Asn Val Leu Tyr Arg Pro Arg Gly Ala Pro Lys Lys Ser Glu Asp
195 200 205

Cys Ser Gly Glu Gly Lys Asp Gln Arg Gly Gln Ser Ile Tyr Ser Thr
210 215 220

Ser Phe Pro Gln Pro Ala Pro Arg Gln Pro His Leu Ala Ser Arg Pro
225 230 235 240

Cys Pro Ser Pro Arg Pro Cys Pro Ser Pro Arg Pro Gly His Pro Val
245 250 255

Ser Met Val Arg Val Ser Pro Arg Pro Ser Pro Thr Gln Gln Pro Arg
260 265 270

Pro Lys Gly Phe Pro Lys Val Gly Glu Glu Xaa
275 280

<210> 107
<211> 98
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (98)
<223> Xaa equals stop translation

<400> 107
Met Cys Lys Leu Cys Phe Tyr Leu Tyr Leu Cys Thr Trp Phe Pro Phe
1 5 10 15

Gly Ala Ser Gly Leu Phe Trp Asp Lys Trp Cys Leu Pro Arg His Leu
20 25 30

Pro Val Val Ser Gly Gln Glu Gln Leu Ser Ser Ser Leu Pro Ala Ala
35 40 45

Leu Leu Phe Leu Gly Arg Arg Trp Arg Pro Pro Leu Arg Val Ser Pro
50 55 60

Gly Leu Ser Phe Arg Gly Gly Arg Ala Gly Glu Pro Gln Gly Trp Gly
65 70 75 80

Asp Ser Trp Glu Met Glu Val Ala Pro Ala Pro Leu Asp Gln Tyr Trp
85 90 95

Leu Xaa

<210> 108
<211> 62
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (62)
<223> Xaa equals stop translation

<400> 108
Met Cys Leu Leu Leu Leu Trp Leu Thr Thr Phe Gln Arg Thr Ser Gly
1 5 10 15

Ala Leu Arg Arg Gly Gly Leu Ser Ser Pro Ala Trp Ala Met Arg Ser

20 25 30

Pro Ser Val Tyr Ser Thr Gln Thr Pro Ser Pro Met Met Ser Thr Gly
35 40 45

Thr Leu Arg Gly Leu Ser Gly Ala Met Cys Asn Leu Ser Xaa
50 55 60

<210> 109
<211> 47
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation

<400> 109
Met Lys Leu Cys Lys Leu Thr Gln Cys Ser Phe Leu Leu Lys Ser Leu
1 5 10 15

Ile Leu Leu Leu Glu Gln Leu Asn Val Ser Met Gly Phe Val Ala Ala
20 25 30

Phe Asp Val Leu Val Gly Cys Ser Ile Cys Phe Glu Lys His Xaa
35 40 45

<210> 110
<211> 47
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation

<400> 110
Met Thr Thr Phe Ser Leu Cys Ser Gln Leu Ala Leu Leu Cys Ala Cys
1 5 10 15

Thr Ser Leu Val Ser Leu Pro Pro Phe Val Asp Tyr Lys Asp Thr Ser
20 25 30

Pro Val Gly Pro Glu Pro His Cys Lys Gly Leu Ile Leu Thr Xaa
35 40 45

<210> 111
<211> 42
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (32)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (42)
<223> Xaa equals stop translation

<400> 111
Met Asn Ile Leu Val Cys Val Phe Trp Leu Trp Gly Gly Val Ala Gly
1 5 10 15

Ser Trp Gly Arg His Ile Phe Ile Phe Thr Ser Val Lys Asn Val Xaa
20 25 30

Xaa Ala Ser His Cys Ala Trp Pro Xaa Xaa
35 40

<210> 112
<211> 41
<212> PRT
<213> Homo sapiens

<400> 112
Met Gly Gly Ile Ala Leu Pro Ser Leu Ser Leu Cys Leu Leu Ser Ala
1 5 10 15

Gly Ser His Cys Ile Ser Pro Ala Asp Gln Glu Thr Gly Pro Lys Val
20 25 30

Thr Ala Pro Gln Gly Asn Phe Leu Pro
35 40

<210> 113
<211> 44
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (44)
<223> Xaa equals stop translation

<400> 113
Met Ile Val Leu Lys Trp Ile Phe Leu Ala Cys Val His Glu Cys Met
1 5 10 15

Cys Lys Pro Leu Lys Cys Phe Leu Glu Lys Ile Leu Glu Val Leu Ile

20 25 30

Met Val Lys Leu Lys Met Gly Val Leu Pro Ala Xaa
35 40

<210> 114
<211> 182
<212> PRT
<213> Homo sapiens

<400> 114
Met Glu Pro Gln Leu Gly Pro Glu Ala Ala Ala Leu Arg Pro Gly Trp
1 5 10 15

Leu Ala Leu Leu Leu Trp Val Ser Ala Leu Ser Cys Ser Phe Ser Leu
20 25 30

Pro Ala Ser Ser Leu Ser Ser Leu Val Pro Gln Val Arg Thr Ser Tyr
35 40 45

Asn Phe Gly Arg Thr Phe Leu Gly Leu Asp Lys Cys Asn Ala Cys Ile
50 55 60

Gly Thr Ser Ile Cys Lys Lys Phe Phe Lys Glu Glu Ile Arg Ser Asp
65 70 75 80

Asn Trp Leu Ala Ser His Leu Gly Leu Pro Pro Asp Ser Leu Leu Ser
85 90 95

Tyr Pro Ala Asn Tyr Ser Asp Asp Ser Lys Ile Trp Arg Pro Val Glu
100 105 110

Ile Phe Arg Leu Val Ser Lys Tyr Gln Asn Glu Ile Ser Asp Arg Lys
115 120 125

Ile Cys Ala Ser Ala Ser Ala Pro Lys Thr Cys Ser Ile Glu Arg Val
130 135 140

Leu Arg Lys Thr Glu Arg Phe Gln Lys Trp Leu Gln Ala Lys Arg Leu
145 150 155 160

Thr Pro Asp Leu Val Gln Asp Cys His Gln Gly Gln Arg Glu Leu Lys
165 170 175

Phe Leu Cys Met Leu Arg
180

<210> 115
<211> 81
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (81)
<223> Xaa equals stop translation

<400> 115
Met Ala Leu Gly Ser Met Tyr Leu Val Leu Thr Leu Ile Val Ala Lys
1 5 10 15

Val Leu Arg Gly Ala Glu Pro Cys Cys Gly Pro Leu Lys Asn Arg Val
20 25 30

Leu Arg Pro Cys Pro Leu Pro Val His Cys Pro Leu Pro Ile Pro Ser
35 40 45

Pro Ala Glu Gly Ile Pro Trp Val Ala Tyr Leu Pro Ile Arg Trp Phe
50 55 60

Ile Ser Cys Cys Pro Gly His Cys Ile Gln Ile Pro Met Cys Thr Ser
65 70 75 80

Xaa

<210> 116
<211> 49
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (49)
<223> Xaa equals stop translation

<400> 116
Met Ser Cys Glu Asn Asn Leu Lys Lys Lys Asn Thr Thr Leu Leu Ser
1 5 10 15

Tyr Leu Ile Phe Leu Ala Leu Val Met Tyr Leu Thr Phe Met Phe Leu
20 25 30

Ser Ser Val Ser Thr Ser Arg Ile Ser Leu Ser Asn Ser Met Ile Ile
35 40 45

Xaa

<210> 117
<211> 204
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (93)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (99)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (151)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (204)
<223> Xaa equals stop translation

<400> 117
Met Val Gly Leu Met His Ile Gly Phe Gly Ile Val Leu Cys Leu Ile
1 5 10 15

Ser Phe Ser Phe Arg Glu Val Leu Gly Phe Ala Ser Thr Ala Xaa Ile
20 25 30

Gly Gly Tyr Pro Phe Trp Gly Gly Leu Ser Phe Ile Ile Ser Gly Ser
35 40 45

Leu Ser Val Ser Ala Ser Lys Glu Leu Ser Arg Cys Leu Val Lys Gly
50 55 60

Ser Leu Gly Met Asn Ile Gly Arg Ser Ile Leu Ala Phe Ile Gly Val
65 70 75 80

Ile Leu Leu Leu Val Asp Met Cys Ile Asn Gly Val Xaa Gly Gln Asp
85 90 95

Tyr Trp Xaa Val Leu Ser Gly Lys Gly Ile Ser Ala Thr Leu Met Ile
100 105 110

Phe Ser Xaa Leu Glu Phe Phe Val Ala Cys Ala Thr Ala His Phe Ala
115 120 125

Asn Gln Ala Asn Thr Thr Thr Asn Met Ser Val Leu Val Ile Pro Asn
130 135 140

Met Tyr Glu Ser Asn Pro Xaa Thr Pro Ala Ser Ser Ser Ala Pro Pro
145 150 155 160

Arg Cys Asn Asn Tyr Ser Ala Asn Ala Pro Lys Arg Lys Arg Gly Ile
165 170 175

Ser Leu Ile Ser Trp Arg Lys Thr Thr Cys Lys Asn Phe Leu Arg Arg
180 185 190

Cys Leu Leu Leu Ser Thr Met Ile Ser Ser Leu Xaa
195 200

<210> 118
<211> 19
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (19)
<223> Xaa equals stop translation

<400> 118
Ser Leu Asp Ala Phe Arg Leu Ile Arg Ala Met Gly Ala Thr Gly Leu
1 5 10 15

Ser Phe Xaa

<210> 119
<211> 13
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (13)
<223> Xaa equals stop translation

<400> 119
Leu Val Leu Trp Ile Val Met Leu Thr Tyr Ala Thr Xaa
1 5 10

<210> 120
<211> 80
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (80)
<223> Xaa equals stop translation

<400> 120
Met Glu Pro Gln Leu Gly Pro Glu Ala Ala Ala Leu Arg Pro Gly Trp
1 5 10 15

Leu Ala Leu Leu Leu Trp Val Ser Ala Leu Ser Cys Ser Phe Ser Leu
20 25 30

Pro Ala Ser Ser Leu Ser Ser Leu Val Pro Gln Val Arg Thr Ser Tyr
35 40 45

Asn Phe Gly Arg Thr Phe Leu Gly Leu Asp Lys Cys Asn Ala Cys Ile
50 55 60

Gly Thr Ser Ile Cys Lys Lys Phe Phe Lys Glu Arg Asn Lys Ile Xaa

65 70 75 80

<210> 121
<211> 146
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (96)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (107)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (111)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (122)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (132)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 121
Met Glu Pro Gln Leu Gly Pro Glu Ala Ala Ala Leu Arg Pro Gly Trp
1 5 10 15

Leu Ala Leu Leu Leu Trp Val Ser Ala Leu Ser Cys Ser Phe Ser Leu
20 25 30

Pro Ala Ser Ser Leu Ser Ser Leu Val Pro Gln Val Arg Thr Ser Tyr
35 40 45

Asn Phe Gly Arg Thr Phe Leu Gly Leu Asp Lys Cys Asn Ala Cys Ile
50 55 60

Gly Thr Ser Ile Cys Lys Lys Phe Phe Lys Glu Glu Ile Arg Ser Asp
65 70 75 80

Asn Trp Leu Ala Ser His Leu Gly Thr Ala Ser Arg Phe Pro Leu Xaa
85 90 95

Ser Tyr Pro Cys Lys Leu Leu Gln Met Ile Xaa Lys Ile Trp Xaa Pro
100 105 110

Cys Gly Xaa Leu Leu Thr Gly Gln Gln Xaa Ser Asn Glu Ile Ser Lys
115 120 125

Gln Glu Ile Xaa Cys Leu Leu His Pro Pro Pro Lys Asn Leu His Ile
130 135 140

Asp Val
145

<210> 122
<211> 81
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (81)
<223> Xaa equals stop translation

<400> 122
Met Ala Leu Gly Ser Met Tyr Leu Val Leu Thr Leu Ile Val Ala Lys
1 5 10 15

Val Leu Arg Gly Ala Glu Pro Cys Cys Gly Pro Leu Lys Asn Arg Val
20 25 30

Leu Arg Pro Cys Pro Leu Pro Val His Cys Pro Leu Pro Ile Pro Ser
35 40 45

Pro Ala Glu Gly Ile Pro Trp Val Ala Tyr Leu Pro Ile Arg Trp Phe
50 55 60

Ile Ser Cys Cys Pro Gly His Cys Ile Gln Ile Pro Met Cys Thr Ser
65 70 75 80

Xaa

<210> 123
<211> 337
<212> PRT
<213> Homo sapiens

<400> 123
Glu Pro His Arg Gly Pro His Leu Pro Pro Asp Leu Gly His His His
1 5 10 15

Gly Gln Arg Pro Gly Leu Gln Asn Ile Asn Val Phe Leu Arg Asn Thr
20 25 30

Val Lys Val Thr Gly Val Val Val Phe Met Phe Ser Leu Ser Trp Gln
35 40 45

Leu Ser Leu Val Thr Phe Met Gly Phe Pro Ile Ile Met Met Val Ser
50 55 60

Asn Ile Tyr Gly Lys Tyr Tyr Lys Arg Leu Ser Lys Glu Val Gln Asn
65 70 75 80

Ala Leu Ala Arg Ala Ser Asn Thr Ala Glu Glu Thr Ile Ser Ala Met
85 90 95

Lys Thr Val Arg Ser Phe Ala Asn Glu Glu Glu Glu Ala Glu Val Tyr
100 105 110

Leu Arg Lys Leu Gln Gln Val Tyr Lys Leu Asn Arg Lys Glu Ala Ala
115 120 125

Ala Tyr Met Tyr Tyr Val Trp Gly Ser Gly Leu Thr Leu Leu Val Val
130 135 140

Gln Val Ser Ile Leu Tyr Tyr Gly Gly His Leu Val Ile Ser Gly Gln
145 150 155 160

Met Thr Ser Gly Asn Leu Ile Ala Phe Ile Ile Tyr Glu Phe Val Leu
165 170 175

Gly Asp Cys Met Glu Asn Val Ser Phe Ser Leu Ser Pro Gly Lys Val
180 185 190

Thr Ala Leu Val Gly Pro Ser Gly Ser Gly Lys Ser Ser Cys Val Asn
195 200 205

Ile Leu Glu Asn Phe Tyr Pro Leu Glu Gly Gly Arg Val Leu Leu Asp
210 215 220

Gly Lys Pro Ile Ser Ala Tyr Asp His Lys Tyr Leu His Arg Val Ile
225 230 235 240

Ser Leu Val Ser Gln Glu Pro Val Leu Phe Ala Arg Ser Ile Thr Asp
245 250 255

Asn Ile Ser Tyr Gly Leu Pro Thr Val Pro Phe Glu Met Val Val Glu
260 265 270

Ala Ala Gln Lys Ala Asn Ala His Gly Phe Ile Met Glu Leu Gln Asp
275 280 285

Gly Tyr Ser Thr Glu Thr Gly Glu Lys Gly Ala Gln Leu Ser Gly Gly
290 295 300

Gln Lys Gln Arg Val Ala Trp Pro Gly Leu Trp Cys Gly Thr Pro Gln
305 310 315 320

Ser Ser Ser Trp Met Lys Pro Pro Ala Leu Trp Met Pro Arg Ala Ser
325 330 335

Ile

<210> 124

<211> 315
<212> PRT
<213> Homo sapiens

<400> 124
Met Ser Ser Ala Thr Trp Thr Ala Ala Ser Trp Arg Thr Ser Ala Thr
1 5 10 15

Ser Thr Ser Leu Thr Arg Cys Trp Ile Ser Gly Gln Pro Ala Cys Thr
20 25 30

Ala Ala Ala Cys Cys Trp Gly Ala Thr Ile Gly Val Ala Lys Asn Ser
35 40 45

Ala Leu Gly Pro Arg Arg Leu Arg Ala Ser Trp Leu Val Ile Thr Leu
50 55 60

Val Cys Leu Phe Val Gly Ile Tyr Ala Met Val Lys Leu Leu Leu Phe
65 70 75 80

Ser Glu Val Arg Arg Pro Ile Arg Asp Pro Trp Phe Trp Ala Leu Phe
85 90 95

Val Trp Thr Tyr Ile Ser Leu Gly Ala Ser Phe Leu Leu Trp Trp Leu
100 105 110

Leu Ser Thr Val Arg Pro Gly Thr Gln Ala Leu Glu Pro Gly Ala Ala
115 120 125

Thr Glu Ala Glu Gly Phe Pro Gly Ser Gly Arg Pro Pro Pro Glu Gln
130 135 140

Ala Ser Gly Ala Thr Leu Gln Lys Leu Leu Ser Tyr Thr Lys Pro Asp
145 150 155 160

Val Ala Phe Leu Val Ala Ala Ser Phe Phe Leu Ile Val Ala Ala Leu
165 170 175

Gly Glu Thr Phe Leu Pro Tyr Tyr Thr Gly Arg Ala Ile Asp Gly Ile
180 185 190

Val Ile Gln Lys Ser Met Asp Gln Phe Ser Thr Ala Val Val Ile Val
195 200 205

Cys Leu Leu Ala Ile Gly Ser Ser Phe Ala Ala Gly Ile Arg Gly Gly
210 215 220

Ile Phe Thr Leu Ile Phe Ala Arg Leu Asn Ile Arg Leu Arg Asn Cys
225 230 235 240

Leu Phe Arg Ser Leu Val Ser Gln Glu Thr Ser Phe Phe Asp Glu Asn
245 250 255

Arg Thr Gly Asp Leu Ile Ser Arg Leu Thr Ser Asp Thr Thr Met Val
260 265 270

Ser Asp Leu Val Ser Arg Thr Ser Met Ser Ser Cys Gly Thr Gln Ser
275 280 285

Arg Ser Arg Ala Trp Trp Ser Ser Cys Ser Ala Ser His Gly Ser Ser
290 295 300

Pro Trp Ser Pro Ser Trp Ala Ser Pro Ser Ser
305 310 315

<210> 125
<211> 167
<212> PRT
<213> Homo sapiens

<400> 125
His Leu Leu Arg Pro Ala His Cys Ala Phe Arg Asp Gly Gly Gly Gly
1 5 10 15

Arg Thr Glu Gly Gln Cys Pro Arg Leu His His Gly Thr Pro Gly Arg
20 25 30

Leu Gln His Arg Asp Arg Gly Glu Gly Arg Pro Ala Val Arg Trp Pro
35 40 45

Glu Ala Ala Gly Gly Met Ala Arg Ala Leu Val Arg Asn Pro Pro Val
50 55 60

Leu Ile Leu Asp Glu Ala Thr Ser Ala Leu Asp Ala Glu Ser Glu Tyr
65 70 75 80

Leu Ile Gln Gln Ala Ile His Gly Asn Leu Gln Lys His Thr Val Leu
85 90 95

Ile Ile Ala His Arg Leu Ser Thr Val Glu His Ala His Leu Ile Val
100 105 110

Val Leu Asp Lys Gly Arg Val Val Gln Gln Gly Thr His Gln Gln Leu
115 120 125

Leu Ala Gln Gly Gly Leu Tyr Ala Lys Leu Val Gln Arg Gln Met Leu
130 135 140

Gly Leu Gln Pro Ala Ala Asp Phe Thr Ala Gly His Asn Glu Pro Val
145 150 155 160

Ala Asn Gly Ser His Lys Ala
165

<210> 126
<211> 227
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (71)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 126
Arg Leu Thr Lys Thr Ile Ser Phe Ser Leu Gln Asn Gln Thr Ala Phe

1 5 10 15

Ile Asn Ser Leu Ala Lys Thr Pro Tyr Gln Ala Leu Thr Gly Ala Ala
20 25 30

Leu Ala Gly Ser Tyr Pro Ile Trp Glu Asn Glu Asn Thr Leu Ser Trp
35 40 45

Tyr Leu Pro Ser Pro Thr Thr Leu Leu Ser Pro Pro Val Leu Phe Cys
50 55 60

Val Ile Gln Leu Ile Phe Xaa Leu Pro Ala Asn Trp Ser Gly Thr Cys
65 70 75 80

Thr Leu Val Phe Gln Ala Pro Thr Ile Asn Ile Leu Pro Pro Asn Gln
85 90 95

Thr Ile Leu Ile Ser Val Glu Ala Ser Ile Ser Ser Ser Pro Ile Arg
100 105 110

Asn Lys Trp Ala Leu His Leu Ile Thr Leu Leu Thr Gly Leu Gly Ile
115 120 125

Thr Ala Ala Leu Gly Thr Gly Ile Ala Gly Ile Thr Thr Ser Ile Thr
130 135 140

Ser Tyr Gln Thr Leu Phe Thr Thr Leu Ser Asn Thr Val Glu Asp Met
145 150 155 160

His Thr Ser Ile Thr Ser Leu Gln Arg Gln Leu Asp Phe Leu Val Gly
165 170 175

Val Ile Leu Gln Asn Trp Arg Val Leu Asp Leu Leu Thr Thr Glu Lys
180 185 190

Gly Gly Thr Cys Ile Tyr Leu Gln Glu Glu Cys Cys Phe Cys Val Asn
195 200 205

Glu Ser Gly Ile Val His Ile Ala Val Arg Arg Leu His Asp Arg Ala
210 215 220

Ala Glu Leu
225

<210> 127
<211> 29
<212> PRT
<213> Homo sapiens

<400> 127
Tyr Pro Ile Trp Glu Asn Glu Asn Thr Leu Ser Trp Tyr Leu Pro Ser
1 5 10 15

Pro Thr Thr Leu Leu Ser Pro Pro Val Leu Phe Cys Val
20 25

<210> 128

<211> 27
<212> PRT
<213> Homo sapiens

<400> 128
Arg Val Leu Asp Leu Leu Thr Thr Glu Lys Gly Gly Thr Cys Ile Tyr
1 5 10 15

Leu Gln Glu Glu Cys Cys Phe Cys Val Asn Glu
20 25

<210> 129
<211> 10
<212> PRT
<213> Homo sapiens

<400> 129
Phe Ser Leu Gly Arg Arg His Cys Leu Gly
1 5 10

<210> 130
<211> 123
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (64)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (83)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 130
Glu His Pro Thr Ala Asp Arg Ala Gly Cys Ser Ala Ser Gly Ala Cys
1 5 10 15

Tyr Ser Leu His His Ala Thr Met Lys Arg Gln Ala Ala Glu Glu Ala
20 25 30

Cys Ile Leu Arg Gly Gly Ala Leu Ser Thr Val Arg Ala Gly Ala Glu
35 40 45

Leu Arg Ala Val Leu Ala Leu Leu Arg Ala Gly Pro Gly Pro Gly Xaa
50 55 60

Gly Ser Lys Asp Leu Leu Phe Trp Val Ala Leu Glu Arg Arg Arg Ser
65 70 75 80

His Cys Xaa Leu Glu Asn Glu Pro Leu Arg Gly Phe Ser Trp Leu Ser
85 90 95

Ser Asp Pro Gly Gly Leu Glu Ser Asp Thr Leu Gln Trp Val Glu Glu
100 105 110

```
Pro Gln Arg Ser Cys Thr Ala Arg Arg Trp Val
        115                 120
```

<210> 131
<211> 344
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (19)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 131

```
Ser Arg Pro Pro Val Gly Ser Ser Pro Gln Leu Glu Gly Asp Ala Met
  1               5                  10                  15

Pro Pro Xaa Arg Gln Arg Tyr Leu Cys Lys Tyr Gln Phe Glu Val Leu
            20                  25                  30

Cys Pro Ala Pro Arg Pro Gly Ala Ala Ser Asn Leu Ser Tyr Arg Ala
        35                  40                  45

Pro Phe Gln Leu His Ser Ala Ala Leu Asp Phe Ser Pro Pro Gly Thr
    50                  55                  60

Glu Val Ser Ala Leu Cys Arg Gly Gln Leu Pro Ile Ser Val Thr Cys
 65                  70                  75                  80

Ile Ala Asp Glu Ile Gly Ala Arg Trp Asp Lys Leu Ser Gly Asp Val
                 85                  90                  95

Leu Cys Pro Cys Pro Gly Arg Tyr Leu Arg Ala Gly Lys Cys Ala Glu
            100                 105                 110

Leu Pro Asn Cys Leu Asp Asp Leu Gly Gly Phe Ala Cys Glu Cys Ala
        115                 120                 125

Thr Gly Phe Glu Leu Gly Lys Asp Gly Arg Ser Cys Val Thr Ser Gly
    130                 135                 140

Glu Gly Gln Pro Thr Leu Gly Gly Thr Gly Val Pro Thr Arg Arg Pro
145                 150                 155                 160

Pro Ala Thr Ala Thr Ser Pro Val Pro Gln Arg Thr Trp Pro Ile Arg
                165                 170                 175

Val Asp Glu Lys Leu Gly Glu Thr Pro Leu Val Pro Glu Gln Asp Asn
            180                 185                 190

Ser Val Thr Ser Ile Pro Glu Ile Pro Arg Trp Gly Ser Gln Ser Thr
        195                 200                 205

Met Ser Thr Leu Gln Met Ser Leu Gln Ala Glu Ser Lys Ala Thr Ile
    210                 215                 220

Thr Pro Ser Gly Ser Val Ile Ser Lys Phe Asn Ser Thr Thr Ser Ser
225                 230                 235                 240
```

Ala Thr Pro Gln Ala Phe Asp Ser Ser Ser Ala Val Val Phe Ile Phe
245 250 255

Val Ser Thr Ala Val Val Val Leu Val Ile Leu Thr Met Thr Val Leu
260 265 270

Gly Leu Val Lys Leu Cys Phe His Glu Ser Pro Ser Ser Gln Pro Arg
275 280 285

Lys Glu Ser Met Gly Pro Pro Gly Trp Arg Val Ile Leu Lys Pro Ala
290 295 300

Ala Leu Gly Ser Ser Ser Ala His Cys Thr Asn Asn Gly Val Lys Val
305 310 315 320

Gly Asp Cys Asp Leu Arg Asp Arg Ala Glu Gly Ala Leu Leu Ala Glu
325 330 335

Ser Pro Leu Gly Ser Ser Asp Ala
340

<210> 132
<211> 7
<212> PRT
<213> Homo sapiens

<400> 132
Arg Tyr Leu Thr Leu Thr His
1 5

<210> 133
<211> 6
<212> PRT
<213> Homo sapiens

<400> 133
Cys Asn Thr Pro Trp Ala
1 5

<210> 134
<211> 8
<212> PRT
<213> Homo sapiens

<400> 134
Ala Pro Val Ile Phe Ser His Ser
1 5

<210> 135
<211> 6
<212> PRT
<213> Homo sapiens

<400> 135

Arg Asn Val Pro Asp Asp
1 5

<210> 136
<211> 6
<212> PRT
<213> Homo sapiens

<400> 136
Gly Leu Glu Asp Val Ser
1 5

<210> 137
<211> 23
<212> PRT
<213> Homo sapiens

<400> 137
Val Glu Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr
1 5 10 15

Phe Tyr Met Leu Gly Val Arg
20

<210> 138
<211> 6
<212> PRT
<213> Homo sapiens

<400> 138
Val Glu Gly Gly His Ser
1 5

<210> 139
<211> 190
<212> PRT
<213> Homo sapiens

<400> 139
Thr Trp Leu Arg Leu Gly Ser Ser Gln Ile Trp Leu Gly Thr Ala Pro
1 5 10 15

Arg Gly Pro Arg Ile His Pro Glu Gln Ala Gly Leu Ala Gly Ala Pro
20 25 30

Val Lys Ser Thr Ser Ser Glu Glu Ser Gln Pro Gly Gly Gln Cys Gln
35 40 45

Ser Ser Gly Gly Ala Gln Thr Leu Pro Ser Leu Arg Ala Ala Pro Val
50 55 60

Ala Ala Leu Gly Ser Leu Ser Ser Tyr Pro Asp Ser Cys Pro Arg Ala
65 70 75 80

Thr Thr Pro Glu Leu Cys Pro Gly Ala Pro Thr Leu His Leu Ala Asp

85 90 95

Ser Ile Ser Gly Pro Val Ser Pro Pro Gly Ser Ser Leu Gly Pro Asp
100 105 110

Ala Trp Thr Leu Cys Ala Lys His His Gln Ala Lys Gly Met Thr Leu
115 120 125

Gly Thr Pro Lys Val Leu Arg Leu Gln Pro Val Ser Pro Cys Trp Gly
130 135 140

Pro Lys Ser Trp Arg Val Pro Gly Pro Phe Gln Pro Gly Arg Arg Arg
145 150 155 160

Gly Glu Ser Arg Gln Gln Gly Arg Gly Lys Arg Arg Ser Ala Arg Ser
165 170 175

Ala Gln Ser Pro Thr Gly Pro Glu Ser Ala Ala Trp Pro Cys
180 185 190

<210> 140
<211> 129
<212> PRT
<213> Homo sapiens

<400> 140
Thr Val Ala Thr Ala Cys Val Trp Ala Ala Cys Thr Gly Cys Trp Ala
1 5 10 15

Arg Pro Pro Val Pro Thr Trp Ala Gly Cys Ala Ala Arg Cys Ala Ala
20 25 30

Glu Asp Ala Arg Ala Gly Val Gly Asp Leu Pro Ala Thr Gly Gly Ala
35 40 45

Ala Thr Gly Arg Arg Ala Leu Thr Pro Ala Pro Pro Arg Gly Pro Cys
50 55 60

Ile Leu Ser Pro Gln Pro Trp Ala Leu Gly Leu Pro Gly Ala Pro Leu
65 70 75 80

Pro Ala Ala Leu Pro Gly Arg Ala Arg Gly Arg Pro Gly Leu Pro Ala
85 90 95

Leu Pro Ala Leu Ser Thr Leu Pro Gly Cys Pro Ala Leu Asp Pro Ala
100 105 110

Gly Ala Gly Thr Leu Cys Pro Pro Pro Gly Ala Ala Glu Pro Ala Gly
115 120 125

Pro

<210> 141
<211> 90
<212> PRT
<213> Homo sapiens

<400> 141
Arg Ser Gly Gln Pro Gly Glu Gly Ser Met Leu Arg Lys Phe Ser Leu
1 5 10 15

Gln Arg Leu Leu Ser Pro Leu Asp Gln Ala Gln Thr Arg Trp Gly Leu
20 25 30

Ala Leu Ala Cys Val Ala Gly Asp Lys Gly Pro Pro Arg Pro Trp Asn
35 40 45

Ile Ser Ser Ala Pro Ala His Pro His Val Thr Thr Pro Gly Met Glu
50 55 60

Thr Ser Gly Gly Pro Ala Arg Asp Gly Gly Leu Ile Leu Glu Arg Glu
65 70 75 80

Ala Ala Phe Asn Lys Pro Ala Pro Gly Glu
85 90

<210> 142
<211> 307
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (135)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (197)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (203)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (219)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (255)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 142
Arg Cys Gln Arg Asn Lys Asp Ile Met Met Ser Ser Lys Pro Thr Ser
1 5 10 15

His Ala Glu Val Asn Glu Thr Ile Pro Asn Pro Tyr Pro Pro Ser Ser
20 25 30

Phe Met Ala Pro Gly Phe Gln Gln Pro Leu Gly Ser Ile Asn Leu Glu

35 40 45

Asn Gln Ala Gln Gly Ala Gln Arg Ala Gln Pro Tyr Gly Ile Thr Ser
50 55 60

Pro Gly Ile Phe Ala Ser Ser Gln Pro Gly Gln Gly Asn Ile Gln Met
65 70 75 80

Ile Asn Pro Ser Val Gly Thr Ala Val Met Asn Phe Lys Glu Glu Ala
85 90 95

Lys Ala Leu Gly Val Ile Gln Ile Met Val Gly Leu Met His Ile Gly
100 105 110

Phe Gly Ile Val Leu Cys Leu Ile Ser Phe Ser Phe Arg Glu Val Leu
115 120 125

Gly Phe Ala Ser Thr Ala Xaa Ile Gly Gly Tyr Pro Phe Trp Gly Gly
130 135 140

Leu Ser Phe Ile Ile Ser Gly Ser Leu Ser Val Ser Ala Ser Lys Glu
145 150 155 160

Leu Ser Arg Cys Leu Val Lys Gly Ser Leu Gly Met Asn Ile Gly Arg
165 170 175

Ser Ile Leu Ala Phe Ile Gly Val Ile Leu Leu Leu Val Asp Met Cys
180 185 190

Ile Asn Gly Val Xaa Gly Gln Asp Tyr Trp Xaa Val Leu Ser Gly Lys
195 200 205

Gly Ile Ser Ala Thr Leu Met Ile Phe Ser Xaa Leu Glu Phe Phe Val
210 215 220

Ala Cys Ala Thr Ala His Phe Ala Asn Gln Ala Asn Thr Thr Thr Asn
225 230 235 240

Met Ser Val Leu Val Ile Pro Asn Met Tyr Glu Ser Asn Pro Xaa Thr
245 250 255

Pro Ala Ser Ser Ser Ala Pro Pro Arg Cys Asn Asn Tyr Ser Ala Asn
260 265 270

Ala Pro Lys Arg Lys Arg Gly Ile Ser Leu Ile Ser Trp Arg Lys Thr
275 280 285

Thr Cys Lys Asn Phe Leu Arg Arg Cys Leu Leu Leu Ser Thr Met Ile
290 295 300

Ser Ser Leu
305

<210> 143
<211> 246
<212> PRT
<213> Homo sapiens

<400> 143
Met Gly Arg Leu Asp Gly Lys Val Ile Ile Leu Thr Ala Ala Ala Gln
1 5 10 15

Gly Ile Gly Gln Ala Ala Ala Leu Ala Phe Ala Arg Glu Gly Ala Lys
20 25 30

Val Ile Ala Thr Asp Ile Asn Glu Ser Lys Leu Gln Glu Leu Glu Lys
35 40 45

Tyr Pro Gly Ile Gln Thr Arg Val Leu Asp Val Thr Lys Lys Lys Gln
50 55 60

Ile Asp Gln Phe Ala Asn Glu Val Glu Arg Leu Asp Val Leu Phe Asn
65 70 75 80

Val Ala Gly Phe Val His His Gly Thr Val Leu Asp Cys Glu Glu Lys
85 90 95

Asp Trp Asp Phe Ser Met Asn Leu Asn Val Arg Asn Val Met Tyr Leu
100 105 110

Met Ile Lys Ala Phe Leu Pro Lys Met Leu Ala Gln Lys Ser Gly Asn
115 120 125

Ile Ile Asn Met Ser Ser Val Ala Ser Ser Val Lys Gly Val Val Asn
130 135 140

Arg Cys Val Tyr Ser Thr Thr Lys Ala Ala Val Ile Gly Leu Thr Lys
145 150 155 160

Ser Val Ala Ala Asp Phe Ile Gln Gln Gly Ile Arg Cys Asn Cys Val
165 170 175

Cys Pro Gly Thr Val Asp Thr Pro Ser Leu Gln Glu Arg Ile Gln Ala
180 185 190

Arg Gly Asn Pro Glu Glu Ala Arg Asn Asp Phe Leu Lys Arg Gln Lys
195 200 205

Thr Gly Arg Phe Ala Thr Ala Glu Glu Ile Ala Met Leu Cys Val Tyr
210 215 220

Leu Ala Ser Asp Glu Ser Ala Tyr Val Thr Gly Asn Pro Val Ile Ile
225 230 235 240

Asp Gly Gly Trp Ser Leu
245

<210> 144
<211> 234
<212> PRT
<213> Homo sapiens

<400> 144
Gly Thr Ile Gly Leu Tyr Trp Val Gly Ser Ile Ile Met Ser Val Val
1 5 10 15

Val Phe Val Pro Gly Asn Ile Val Gly Lys Tyr Gly Thr Arg Ile Cys
20 25 30

Pro Ala Phe Phe Leu Ser Ile Pro Tyr Thr Cys Leu Pro Val Trp Ala
35 40 45

Gly Phe Arg Ile Tyr Asn Gln Pro Ser Glu Asn Tyr Asn Tyr Pro Ser
50 55 60

Lys Val Ile Gln Glu Ala Gln Ala Lys Asp Leu Leu Arg Arg Pro Phe
65 70 75 80

Asp Leu Met Leu Val Val Cys Leu Leu Leu Ala Thr Gly Phe Cys Leu
85 90 95

Phe Arg Gly Leu Ile Ala Leu Asp Cys Pro Ser Glu Leu Cys Arg Leu
100 105 110

Tyr Thr Gln Phe Gln Glu Pro Tyr Leu Lys Asp Pro Ala Ala Tyr Pro
115 120 125

Lys Ile Gln Met Leu Ala Tyr Met Phe Tyr Ser Val Pro Tyr Phe Val
130 135 140

Thr Ala Leu Tyr Gly Leu Val Val Pro Gly Cys Ser Trp Met Pro Asp
145 150 155 160

Ile Thr Leu Ile His Ala Gly Gly Leu Ala Gln Ala Gln Phe Ser His
165 170 175

Ile Gly Ala Ser Leu His Ala Arg Thr Ala Tyr Val Tyr Arg Val Pro
180 185 190

Glu Glu Ala Lys Ile Leu Phe Leu Ala Leu Asn Ile Ala Tyr Gly Val
195 200 205

Leu Pro Gln Leu Leu Ala Tyr Arg Cys Ile Tyr Lys Pro Glu Phe Phe
210 215 220

Ile Lys Thr Lys Ala Glu Glu Lys Val Glu
225 230

<210> 145
<211> 238
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (184)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 145
Met Ser Asn His Asp Pro Arg Gly Cys Thr Arg Arg Arg Ala Gln Lys
1 5 10 15

Pro Leu Ala Ile Gln Pro Arg Leu Phe His Ala Ser Ala Pro Asp Glu
20 25 30

Gly Thr Gln Gly Thr Leu Lys Gly Thr Gln Lys Gly Gly Cys Ile Leu
35 40 45

Val Gln Cys Gln Ser Glu Gly Gly Ala Ala Gly Ala Trp Thr Gly Pro
50 55 60

Pro Ser Pro Ala Arg Asp Arg Arg Val Arg Pro Pro Gly Thr Lys Ala
65 70 75 80

Gln Arg Leu Glu Arg Arg Arg His Val Pro Arg Leu His Gly Leu Gly
85 90 95

Val Gly Gly Cys Glu Val Arg Thr Gly Ile Val Ala Arg Ile Ser Gly
100 105 110

Ser Thr Pro Trp Ala Gly Gly Lys Pro Leu Gly Leu His Gly Ala Met
115 120 125

Gly Glu Ala Gly Ala Gly Asp Thr Gly Cys Cys Ala Lys Gly Pro Ser
130 135 140

Pro Ala Ala Pro Leu Pro Ala Glu Gly Arg Gly Gln Gly Ala Gly Pro
145 150 155 160

Gly Gly Leu Val Gly Arg Gly Glu Arg Arg Asp Gln Gln Thr Leu Leu
165 170 175

Gly Met Ala Glu Asp Thr Gly Kaa Ser Pro Ser Arg Pro Ser Ala Pro
180 185 190

Ala Pro Arg Ala Pro Val Pro Ala Arg Gln Pro Leu Pro Arg Ala Arg
195 200 205

Leu Gly Ala Ala Thr Ala Ile Ser Lys Ser Arg Ser Ser Arg Val Ala
210 215 220

Pro Ala Leu Ala Ala Ala Ile Ser Ala Ser Ser His Gln Arg
225 230 235

<210> 146
<211> 207
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (3)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (5)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (9)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (169)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 146
Ser Thr Xaa Thr Xaa Thr Ile Gly Xaa Ala Gly Thr Pro Ala Gly Thr
1 5 10 15

Gly Pro Glu Phe Pro Gly Arg Pro Thr Arg Pro Gly Glu Xaa Pro Val
20 25 30

Asp Phe Ser Lys Gln Tyr Ser Ala Ser Trp Met Cys Leu Ser Leu Leu
35 40 45

Ala Ala Leu Ala Cys Ser Ala Gly Asp Thr Trp Ala Ser Glu Val Gly
50 55 60

Pro Val Leu Ser Lys Ser Ser Pro Arg Leu Ile Thr Thr Trp Glu Lys
65 70 75 80

Val Pro Val Gly Thr Asn Gly Gly Val Thr Val Val Gly Leu Val Ser
85 90 95

Ser Leu Leu Gly Gly Thr Phe Val Gly Ile Ala Tyr Phe Leu Thr Gln
100 105 110

Leu Ile Phe Val Asn Asp Leu Asp Ile Ser Ala Pro Gln Trp Pro Ile
115 120 125

Ile Ala Phe Gly Gly Leu Ala Gly Leu Leu Gly Ser Ile Val Asp Ser
130 135 140

Tyr Leu Gly Ala Thr Met Gln Tyr Thr Gly Leu Asp Glu Ser Thr Gly
145 150 155 160

Met Val Val Asn Ser Pro Thr Asn Xaa Ala Arg His Ile Ala Gly Lys
165 170 175

Pro Ile Leu Asp Asn Asn Ala Val Asn Leu Phe Ser Ser Val Leu Ile
180 185 190

Ala Leu Leu Leu Pro Thr Ala Ala Trp Gly Phe Trp Pro Arg Gly
195 200 205

<210> 147
<211> 116
<212> PRT
<213> Homo sapiens

<400> 147

Met Ser Gln Arg Ala Gly Arg Arg Pro Gly Gly Trp Asn Pro Ser Leu
1   5   10   15

Ser Val Val Glu Val Cys Arg Gly Cys Arg Gly Thr Gly Pro Leu Pro
            20   25   30

Trp Gly Ala Ser Leu Phe Pro Cys Ser Ala Ser Pro Leu Phe Pro Leu
        35   40   45

Pro Leu Asn Arg Arg Gly Asp Val His Gly Thr Leu Gly Gly Arg Met
    50   55   60

Leu Asn Arg Val Glu Cys Arg Asp Gly Val Ala Ala Ala Trp Leu Cys
65   70   75   80

Leu His Asp Ala Ala Ala Ile Arg Gly Ala Val Gly Arg Cys Pro Met
                85   90   95

Trp Thr Gln Pro Thr His Trp Val Leu Leu Leu Cys Trp Ala Leu His
            100   105   110

Phe Tyr Cys Arg
        115

<210> 148
<211> 81
<212> PRT
<213> Homo sapiens

<400> 148
Met Thr Ala His Ser Phe Ala Leu Pro Val Ile Ile Phe Thr Thr Phe
1   5   10   15

Trp Gly Leu Val Gly Ile Ala Gly Pro Trp Phe Val Pro Lys Gly Pro
            20   25   30

Asn Arg Gly Val Ile Ile Thr Met Leu Val Ala Thr Ala Val Cys Cys
        35   40   45

Tyr Leu Phe Trp Leu Ile Ala Ile Leu Ala Gln Leu Asn Pro Leu Phe
    50   55   60

Gly Pro Gln Leu Lys Asn Glu Thr Ile Trp Tyr Val Arg Phe Leu Trp
65   70   75   80

Glu

<210> 149
<211> 110
<212> PRT
<213> Homo sapiens

<400> 149
Ala Gln Arg Ala Ala Arg Leu Gly Thr Arg Ala Pro Ala Ala Pro Ala
1   5   10   15

Ala Arg Pro Cys Ile Leu Pro Gly His Pro Ala Pro Gly His Asp Gly
20 25 30

Ala Leu Ile Arg Pro Pro Gly His His Leu His His Val Leu Gly Pro
35 40 45

Arg Arg His Arg Gly Pro Trp Phe Val Pro Lys Gly Pro Asn Arg Gly
50 55 60

Val Ile Ile Thr Met Leu Val Ala Thr Ala Val Cys Cys Tyr Leu Phe
65 70 75 80

Trp Leu Ile Ala Ile Leu Ala Gln Leu Asn Pro Leu Phe Gly Pro Gln
85 90 95

Leu Lys Asn Glu Thr Ile Trp Tyr Val Arg Phe Leu Trp Glu
100 105 110

<210> 150
<211> 135
<212> PRT
<213> Homo sapiens

<400> 150
Met Thr Leu Glu Glu His Arg Asp Arg Pro Arg Leu Gly Met Cys Met
1 5 10 15

Cys Val Cys Ala Cys Val Tyr Ala Cys Met Leu Met His Val Cys Val
20 25 30

His Ala Cys Leu Cys Val Cys Val Cys Val Cys Val Glu Pro Trp Ser
35 40 45

Ser Arg Gln Ser Lys Asp Thr Gly Gly Trp His Met Glu Glu Gln Val
50 55 60

Thr Pro Pro Ser Leu Ala Gln Leu Lys Ser Gly Gln Val Arg Gly Glu
65 70 75 80

Met Gly Glu Gly Arg Gly Glu Lys Gly Glu Glu Ala Leu Thr Gly Gly
85 90 95

Ala Glu Ala Leu Ser Leu Leu Gly Arg Arg Ser Pro Ser Thr Pro Leu
100 105 110

Phe Leu Asp Arg Glu Asp Lys Gln Ala Lys Asp Ala Arg Asn Leu Ser
115 120 125

Ser Thr Val Ala Pro Asp Phe
130 135

<210> 151
<211> 82
<212> PRT
<213> Homo sapiens

<400> 151

His Glu Lys Ile Leu Thr Pro Ile Trp Pro Ser Ser Thr Asp Leu Glu
1 5 10 15

Lys Pro His Glu Met Leu Phe Leu Asn Val Ile Leu Phe Ser Leu Thr
20 25 30

Val Phe Thr Leu Ile Ser Thr Ala His Thr Leu Asp Arg Ala Val Arg
35 40 45

Ser Asp Trp Leu Leu Leu Val Leu Ile Tyr Ala Cys Leu Glu Glu Leu
50 55 60

Ile Pro Glu Leu Ile Phe Asn Leu Tyr Cys Gln Gly Asn Ala Thr Leu
65 70 75 80

Phe Phe

<210> 152
<211> 71
<212> PRT
<213> Homo sapiens

<400> 152
Pro Ala Asn Lys Ala Gly Ala Ala Ile Glu Ala Gly Ile Gly Ile Ser
1 5 10 15

Leu Met Val Leu Ser Pro Trp Ala Cys Leu Phe Val Val Phe Phe Pro
20 25 30

Tyr Ile Gln Ser Ser Leu Arg Ser Asp Lys His Leu Gln Leu Ser Asn
35 40 45

Ile Leu Pro Thr Pro Ser His His Ile His Leu Pro Ala Ser Ile Cys
50 55 60

Ile Gln Leu Arg Ala Gly Asn
65 70

<210> 153
<211> 75
<212> PRT
<213> Homo sapiens

<400> 153
Ala Gly Ser Pro Ala Gly Thr Gly Pro Glu Phe Pro Gly Arg Pro Thr
1 5 10 15

Arg Pro Ile Ser Thr His Val Phe Glu Tyr Glu Cys Ile Cys Lys Ile
20 25 30

Pro Arg Phe Met Cys Glu Tyr Val Leu Leu Leu Tyr Ile Val Leu Leu
35 40 45

Cys Asn Arg Ser Tyr Ala Val Phe Thr Gln Cys Val Leu Arg Ser Ser
50 55 60

Pro Ile Asp Ser Ser Arg Asn Ala Val Leu Leu
65 70 75

<210> 154
<211> 483
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (194)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (205)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 154
Met Pro Ser Gly Met Ser Ala Ala Val Pro Ile Ser Gly Leu Leu Asp
1 5 10 15

Leu Ser His Asn Ser Ile Ser Gln Glu Ser Ala Leu Tyr Leu Leu Glu
20 25 30

Thr Leu Pro Ser Cys Pro Arg Val Arg Glu Ala Ser Val Asn Leu Gly
35 40 45

Ser Glu Gln Ser Phe Arg Ile His Phe Ser Arg Glu Asp Gln Ala Gly
50 55 60

Lys Thr Leu Arg Leu Ser Glu Cys Ser Phe Arg Pro Glu His Val Ser
65 70 75 80

Arg Leu Ala Thr Gly Leu Ser Lys Ser Leu Gln Leu Thr Glu Leu Thr
85 90 95

Leu Thr Gln Cys Cys Leu Gly Gln Lys Gln Leu Ala Ile Leu Leu Ser
100 105 110

Leu Val Gly Arg Pro Ala Gly Leu Phe Ser Leu Arg Val Gln Glu Pro
115 120 125

Trp Ala Asp Arg Ala Arg Val Leu Ser Leu Leu Glu Val Cys Ala Gln
130 135 140

Ala Ser Gly Ser Val Thr Glu Ile Ser Ile Ser Glu Thr Gln Gln Gln
145 150 155 160

Leu Cys Val Gln Leu Glu Phe Pro Arg Gln Glu Glu Asn Pro Glu Ala
165 170 175

Val Ala Leu Arg Leu Ala His Cys Asp Leu Gly Ala His His Ser Leu
180 185 190

Leu Xaa Gly Gln Leu Met Glu Thr Cys Ala Arg Leu Xaa Gln Leu Ser
195 200 205

Leu Ser Gln Val Asn Leu Cys Glu Asp Asp Asp Ala Ser Ser Leu Leu
210 215 220

Leu Gln Ser Leu Leu Leu Ser Leu Ser Glu Leu Lys Thr Phe Arg Leu
225 230 235 240

Thr Ser Ser Cys Val Ser Thr Glu Gly Leu Ala His Leu Ala Ser Gly
245 250 255

Leu Gly His Cys His His Leu Glu Glu Leu Asp Leu Ser Asn Asn Gln
260 265 270

Phe Asp Glu Glu Gly Thr Lys Ala Leu Met Arg Ala Leu Glu Gly Lys
275 280 285

Trp Met Leu Lys Arg Leu Asp Leu Ser His Leu Leu Leu Asn Ser Ser
290 295 300

Thr Leu Ala Leu Leu Thr His Arg Leu Ser Gln Met Thr Cys Leu Gln
305 310 315 320

Ser Leu Arg Leu Asn Arg Asn Ser Ile Gly Asp Val Gly Cys Cys His
325 330 335

Leu Ser Glu Ala Leu Arg Ala Ala Thr Ser Leu Glu Glu Leu Asp Leu
340 345 350

Ser His Asn Gln Ile Gly Asp Ala Gly Val Gln His Leu Ala Thr Ile
355 360 365

Leu Pro Gly Leu Pro Glu Leu Arg Lys Ile Asp Leu Ser Gly Asn Ser
370 375 380

Ile Ser Ser Ala Gly Gly Val Gln Leu Ala Glu Ser Leu Val Leu Cys
385 390 395 400

Arg Arg Leu Glu Glu Leu Met Leu Gly Cys Asn Ala Leu Gly Asp Pro
405 410 415

Thr Ala Leu Gly Leu Ala Gln Glu Leu Pro Gln His Leu Arg Val Leu
420 425 430

His Leu Pro Phe Ser His Leu Gly Pro Gly Gly Ala Leu Ser Leu Ala
435 440 445

Arg Pro Trp Met Asp Pro Pro Ile Trp Lys Arg Ser Ala Trp Arg Lys
450 455 460

Thr Thr Trp Leu Glu Gly Ser Cys Val Ser Val Trp Ser Ser Arg Cys
465 470 475 480

Ser Asp Arg

<210> 155
<211> 221
<212> PRT
<213> Homo sapiens

<400> 155

His Gln Leu Ser Arg Gly Ser Ala Val Gly Arg Val Ser Arg Ser Leu
1   5   10   15

Gln Ala Pro Gly Gly Val Asp Ala Trp Leu Gln Cys Pro Gly Gly Ser
            20   25   30

His Ser Pro Gly Ala Gly Ser Gly Ala Ala Pro Ala Pro Glu Gly Pro
        35   40   45

Thr Pro Thr Ile Gln Pro Ser Gly Pro Arg Trp Gly Pro Glu Pro Gly
    50   55   60

Gln Ala Leu Asp Gly Ser Pro His Leu Glu Glu Ile Ser Leu Ala Glu
65   70   75   80

Asn Asn Leu Ala Gly Gly Val Leu Arg Phe Cys Met Glu Leu Pro Leu
                85   90   95

Leu Arg Gln Ile Asp Leu Val Ser Cys Lys Ile Asp Asn Gln Thr Ala
            100   105   110

Lys Leu Leu Thr Ser Ser Phe Thr Ser Cys Pro Ala Leu Glu Val Ile
        115   120   125

Leu Leu Ser Trp Asn Leu Leu Gly Asp Glu Ala Ala Ala Glu Leu Ala
    130   135   140

Gln Val Leu Pro Gln Met Gly Arg Leu Lys Arg Val Asp Leu Glu Lys
145   150   155   160

Asn Gln Ile Thr Ala Leu Gly Ala Trp Leu Leu Ala Glu Gly Leu Ala
                165   170   175

Gln Gly Ser Ser Ile Gln Val Ile Arg Leu Trp Asn Asn Pro Ile Pro
            180   185   190

Cys Asp Met Ala Gln His Leu Lys Ser Gln Glu Pro Arg Leu Asp Phe
        195   200   205

Ala Phe Phe Asp Asn Gln Pro Gln Ala Pro Trp Gly Thr
    210   215   220

<210> 156
<211> 89
<212> PRT
<213> Homo sapiens

<400> 156

Glu Lys Leu Phe Cys Phe Glu Met Leu Leu Ile Cys Lys Phe Ser Pro
1   5   10   15

Asn Ser Val Pro Pro Glu Thr Cys Ala Ile Leu Asn Gln Gly Leu Met
            20   25   30

Asp Leu Gly Leu Cys Arg Met Cys Leu Gly Asn Asn Met Phe Ala Gly
        35   40   45

Ser Met Leu Gly Lys Ser His Arg His Ser Pro Phe Ser Ile Asn Gln
50 55 60

Arg His Asn Ala Leu Arg Lys Ala Ala Gly Thr Pro Ala Gln Lys Ser
65 70 75 80

Leu Gly Ile Val Gln Val Ser Pro Asn
85

<210> 157
<211> 58
<212> PRT
<213> Homo sapiens

<400> 157
Gly Cys Ala Gly Cys Ala Leu Val Thr Ile Cys Leu Gln Ala Val Cys
1 5 10 15

Leu Val Lys Ala Ile Ala Ile Leu His Ser Arg Leu Thr Arg Asp Thr
20 25 30

Met His Cys Gly Arg Pro Gln Gly Pro Leu Pro Arg Lys Ala Trp Val
35 40 45

Leu Ser Arg Phe Pro Pro Thr Glu Thr Ala
50 55

<210> 158
<211> 48
<212> PRT
<213> Homo sapiens

<400> 158
Pro Glu Thr Gln Cys Thr Ala Glu Gly Arg Arg Asp Pro Cys Pro Glu
1 5 10 15

Lys Pro Gly Tyr Cys Pro Gly Phe Pro Gln Leu Arg Gln Pro Glu Ile
20 25 30

Trp Pro Arg Gly Lys Gly Lys Thr Leu His Pro Pro Ala Arg His Met
35 40 45

<210> 159
<211> 8
<212> PRT
<213> Homo sapiens

<400> 159
Ser Glu Ile Gly Glu Asn Arg Pro
1 5

<210> 160
<211> 8
<212> PRT
<213> Homo sapiens

<400> 160
His Asp Thr Asp Ser Phe Ala His
1 5

<210> 161
<211> 7
<212> PRT
<213> Homo sapiens

<400> 161
Ala Leu Arg Lys Ala Ala Gly
1 5

<210> 162
<211> 148
<212> PRT
<213> Homo sapiens

<400> 162
Met Arg Gly Pro Val Cys Gly Phe Ser Leu Val Glu Met Leu Leu Ala
1 5 10 15

Leu Ala Leu Gly Leu Met Leu Ile Leu Gly Val Thr Gln Ile Ala Leu
20 25 30

Ser Ser Arg Thr Thr Tyr Ala Ser Gln Ser Ala Ala Ser Leu Leu Gln
35 40 45

Asp Asp Ala Arg Phe Ala Leu Gly Lys Leu Ile Gln Glu Ile Arg Gln
50 55 60

Ala Gly Met Phe Gly Cys Leu Ser Ala Ala Ser Ile Ser Asn Ala Pro
65 70 75 80

Ala Gly Phe Asp Arg Pro Ile Gly Trp Ser Thr Thr Gly Ser Ser Arg
85 90 95

Ser Leu Thr Leu Val Thr Ala Asp Val Gly Glu Gly Gly Ser Lys Pro
100 105 110

Asp Trp Thr Val Leu Ser Asp Cys Thr Gly Ser Ala His Ala Tyr Val
115 120 125

Gly Ser Pro Pro Ala Ala Asn Ala Arg Ala Asn Pro Leu Pro Thr Cys
130 135 140

Ala Lys Leu Thr
145

<210> 163
<211> 137

<212> PRT
<213> Homo sapiens

<400> 163
Met Gly Tyr Tyr Leu Ser Arg Ser Arg Gln Ala Gly Met Val Leu Leu
1 5 10 15

Ile Ser Leu Val Phe Leu Leu Leu Leu Ala Leu Leu Gly Val Ser Ser
20 25 30

Met Gln Gly Ala Ile Ser Gln Glu Lys Ile Thr Gly Ser Leu Arg Gln
35 40 45

Arg Asn Gln Ser Phe Gln Gln Ala Glu Ser Gly Leu Arg Leu Gly Glu
50 55 60

Ser Leu Val Gln Ala Ser Gly Phe Ala Leu Arg Pro Cys His Ser Thr
65 70 75 80

Ala Ala Cys Ala Pro Pro Ala Glu Ser Val Ser Val Val Gly Pro Gly
85 90 95

Thr Asn Pro Val Ser Thr Val Thr Trp Ile Gly Met Lys Asp Gly Val
100 105 110

Tyr Gly Ile Gln Asn Leu Gly Pro Gly Thr Gly Leu Val Asn Ser Arg
115 120 125

Gln Arg Pro Arg Pro Arg Ser Ile Ala
130 135

<210> 164
<211> 209
<212> PRT
<213> Homo sapiens

<400> 164
Glu Asn Glu Ser Thr Lys Glu Pro Ser Leu Leu Gln Tyr Leu Cys Val
1 5 10 15

Gln Ser Pro Ala Gly Leu Asn Gly Phe Asn Val Leu Leu Ser Gly Ser
20 25 30

Gln Thr Pro Pro Thr Val Gly Pro Ser Ser Gly Gln Leu Pro Ser Phe
35 40 45

Ser Val Pro Cys Met Val Leu Pro Ser Pro Pro Leu Gly Pro Phe Pro
50 55 60

Val Leu Tyr Ser Pro Ala Met Pro Gly Pro Val Ser Ser Thr Leu Gly
65 70 75 80

Ala Leu Pro Asn Thr Gly Pro Val Asn Phe Ser Leu Pro Gly Leu Gly
85 90 95

Ser Ile Ala Gln Leu Leu Val Gly Pro Thr Ala Val Val Asn Pro Lys
100 105 110

Ser Ser Thr Leu Pro Ser Ala Asp Pro Gln Leu Gln Ser Gln Pro Ser
115 120 125

Leu Asn Leu Ser Pro Val Met Ser Arg Ser His Ser Val Val Gln Gln
130 135 140

Pro Glu Ser Pro Val Tyr Val Gly His Pro Val Ser Val Val Lys Leu
145 150 155 160

His Gln Ser Pro Val Pro Val Thr Pro Lys Ser Ile Gln Arg Thr His
165 170 175

Arg Glu Thr Phe Phe Lys Thr Pro Gly Ser Leu Gly Asp Pro Val Leu
180 185 190

Lys Arg Arg Glu Arg Asn Asn His Glu Thr Pro Ala Arg Pro Arg Gly
195 200 205

Asp

<210> 165
<211> 454
<212> PRT
<213> Homo sapiens

<400> 165
Arg His Glu Arg His Glu Tyr Arg Arg Ala Leu Asp His Glu Glu Glu
1 5 10 15

Ala Leu Ser Ser Gly Ser Val Gln Glu Ala Glu Ala Met Leu Asp Glu
20 25 30

Pro Gln Glu Gln Ala Glu Gly Ser Leu Thr Val Tyr Val Ile Ser Glu
35 40 45

His Ser Ser Leu Leu Pro Gln Asp Met Met Ser Tyr Ile Gly Pro Lys
50 55 60

Arg Thr Ala Val Val Arg Gly Ile Met His Arg Glu Ala Phe Asn Ile
65 70 75 80

Ile Gly Arg Arg Ile Val Gln Val Ala Gln Ala Met Ser Leu Thr Glu
85 90 95

Asp Val Leu Ala Ala Ala Leu Ala Asp His Leu Pro Glu Asp Lys Trp
100 105 110

Ser Ala Glu Lys Arg Arg Pro Leu Lys Ser Ser Leu Gly Tyr Glu Ile
115 120 125

Thr Phe Ser Leu Leu Asn Pro Asp Pro Lys Ser His Asp Val Tyr Trp
130 135 140

Asp Ile Glu Gly Ala Val Arg Arg Tyr Val Gln Pro Phe Leu Asn Ala
145 150 155 160

Leu Gly Ala Ala Gly Asn Phe Ser Val Asp Ser Gln Ile Leu Tyr Tyr

165 170 175

Ala Met Leu Gly Val Asn Pro Arg Phe Asp Ser Ala Ser Ser Ser Tyr
180 185 190

Tyr Leu Asp Met His Ser Leu Pro His Val Ile Asn Pro Val Glu Ser
195 200 205

Arg Leu Gly Ser Ser Ala Ala Ser Leu Tyr Pro Val Leu Asn Phe Leu
210 215 220

Leu Tyr Val Pro Glu Leu Ala His Ser Pro Leu Tyr Ile Gln Asp Lys
225 230 235 240

Asp Gly Ala Pro Val Ala Thr Asn Ala Phe His Ser Pro Arg Trp Gly
245 250 255

Gly Ile Met Val Tyr Asn Val Asp Ser Lys Thr Tyr Asn Ala Ser Val
260 265 270

Leu Pro Val Arg Val Glu Val Asp Met Val Arg Val Met Glu Val Phe
275 280 285

Leu Ala Gln Leu Arg Leu Leu Phe Gly Ile Ala Gln Pro Gln Leu Pro
290 295 300

Pro Lys Cys Leu Leu Ser Gly Pro Thr Ser Glu Gly Leu Met Thr Trp
305 310 315 320

Glu Leu Asp Arg Leu Leu Trp Ala Arg Ser Val Glu Asn Leu Ala Thr
325 330 335

Ala Thr Thr Thr Leu Thr Ser Leu Ala Gln Leu Leu Gly Lys Ile Ser
340 345 350

Asn Ile Val Ile Lys Asp Asp Val Ala Ser Glu Val Tyr Lys Ala Val
355 360 365

Ala Ala Val Gln Lys Ser Ala Glu Glu Leu Ala Ser Gly His Leu Ala
370 375 380

Ser Ala Phe Val Ala Ser Gln Glu Ala Val Thr Ser Ser Glu Leu Ala
385 390 395 400

Phe Phe Asp Pro Ser Leu Leu His Leu Leu Tyr Phe Pro Asp Asp Gln
405 410 415

Lys Phe Ala Ile Tyr Ile Pro Leu Phe Leu Pro Met Ala Val Pro Ile
420 425 430

Leu Leu Ser Leu Val Lys Ile Phe Leu Glu Thr Arg Lys Ser Trp Arg
435 440 445

Lys Pro Glu Lys Thr Asp
450

<210> 166
<211> 66

<212> PRT
<213> Homo sapiens

<400> 166
Lys Leu Leu Leu Thr Lys Val Glu Gln Lys Leu Glu Leu Ala Arg Leu
1 5 10 15

Gln Val Asp Thr Ser Gly Ser Lys Glu Phe Gly Thr Ser Gly Ile Pro
20 25 30

Ala Lys Cys Arg Phe Pro Lys Ile Phe Val Asn Thr Asp Asp Thr Tyr
35 40 45

Glu Glu Leu His Leu Ile Val Tyr Lys Val Thr Thr Val Phe Leu Pro
50 55 60

Ala Leu
65

<210> 167
<211> 79
<212> PRT
<213> Homo sapiens

<400> 167
Met Glu Pro Gln Leu Gly Pro Glu Ala Ala Ala Leu Arg Pro Gly Trp
1 5 10 15

Leu Ala Leu Leu Leu Trp Val Ser Ala Leu Ser Cys Ser Phe Ser Leu
20 25 30

Pro Ala Ser Ser Leu Ser Ser Leu Val Pro Gln Val Arg Thr Ser Tyr
35 40 45

Asn Phe Gly Arg Thr Phe Leu Gly Leu Asp Lys Cys Asn Ala Cys Ile
50 55 60

Gly Thr Ser Ile Cys Lys Lys Phe Phe Lys Glu Arg Asn Lys Ile
65 70 75

<210> 168
<211> 209
<212> PRT
<213> Homo sapiens

<400> 168
Gln Leu Pro Leu Trp Pro Ser Pro Ala Ser Val Gln Pro Arg Val Asp
1 5 10 15

Ser Gln Arg Ala Arg Gly Ser Pro Glu Pro Lys Met Glu Pro Gln Leu
20 25 30

Gly Pro Glu Ala Ala Ala Leu Arg Pro Gly Trp Leu Ala Leu Leu Leu
35 40 45

Trp Val Ser Ala Leu Ser Cys Ser Phe Ser Leu Pro Ala Ser Ser Leu
50 55 60

Ser Ser Leu Val Pro Gln Val Arg Thr Ser Tyr Asn Phe Gly Arg Thr
65 70 75 80

Phe Leu Gly Leu Asp Lys Cys Asn Ala Cys Ile Gly Thr Ser Ile Cys
85 90 95

Lys Lys Phe Phe Lys Glu Glu Ile Arg Ser Asp Asn Trp Leu Ala Ser
100 105 110

His Leu Gly Leu Pro Pro Asp Ser Leu Leu Ser Tyr Pro Ala Asn Tyr
115 120 125

Ser Asp Asp Ser Lys Ile Trp Arg Pro Val Glu Ile Phe Arg Leu Val
130 135 140

Ser Lys Tyr Gln Asn Glu Ile Ser Asp Arg Lys Ile Cys Ala Ser Ala
145 150 155 160

Ser Ala Pro Lys Thr Cys Ser Ile Glu Arg Val Leu Arg Lys Thr Glu
165 170 175

Arg Phe Gln Lys Trp Leu Gln Ala Lys Arg Leu Thr Pro Asp Leu Val
180 185 190

Gln Asp Cys His Gln Gly Gln Arg Glu Leu Lys Phe Leu Cys Met Leu
195 200 205

Arg

<210> 169
<211> 146
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (96)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (107)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (111)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (115)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE

<222> (122)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (132)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 169
Met Glu Pro Gln Leu Gly Pro Glu Ala Ala Ala Leu Arg Pro Gly Trp
1 5 10 15

Leu Ala Leu Leu Leu Trp Val Ser Ala Leu Ser Cys Ser Phe Ser Leu
20 25 30

Pro Ala Ser Ser Leu Ser Ser Leu Val Pro Gln Val Arg Thr Ser Tyr
35 40 45

Asn Phe Gly Arg Thr Phe Leu Gly Leu Asp Lys Cys Asn Ala Cys Ile
50 55 60

Gly Thr Ser Ile Cys Lys Lys Phe Phe Lys Glu Glu Ile Arg Ser Asp
65 70 75 80

Asn Trp Leu Ala Ser His Leu Gly Thr Ala Ser Arg Phe Pro Leu Xaa
85 90 95

Ser Tyr Pro Cys Lys Leu Leu Gln Met Ile Xaa Lys Ile Trp Xaa Pro
100 105 110

Cys Gly Xaa Leu Leu Thr Gly Gln Gln Xaa Ser Asn Glu Ile Ser Lys
115 120 125

Gln Glu Ile Xaa Cys Leu Leu His Pro Pro Pro Lys Asn Leu His Ile
130 135 140

Asp Val
145

<210> 170
<211> 97
<212> PRT
<213> Homo sapiens

<400> 170
Gly Pro Arg Ala Arg Val Gln Gly Phe Ser Gly Ala Asp Ile Val Lys
1 5 10 15

Phe Met Ala Leu Gly Ser Met Tyr Leu Val Leu Thr Leu Ile Val Ala
20 25 30

Lys Val Leu Arg Gly Ala Glu Pro Cys Cys Gly Pro Leu Lys Asn Arg
35 40 45

Val Leu Arg Pro Cys Pro Leu Pro Val His Cys Pro Leu Pro Ile Pro
50 55 60

Ser Pro Ala Glu Gly Ile Pro Trp Val Ala Tyr Leu Pro Ile Arg Trp

65 70 75 80

Phe Ile Ser Cys Cys Pro Gly His Cys Ile Gln Ile Pro Met Cys Thr
85 90 95

Ser